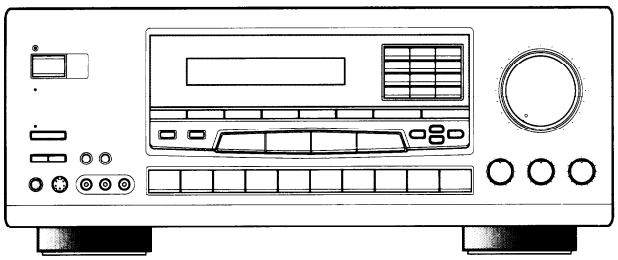
Artistry in Sound

ONKYO®

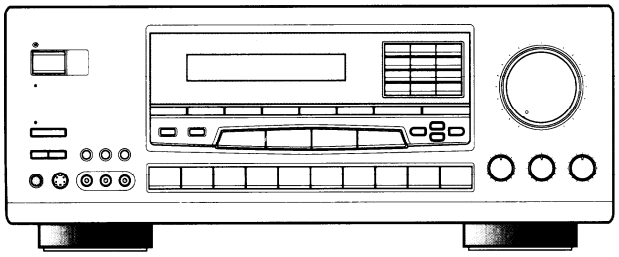
Audio Video Control Receiver

TX-DS838

Instruction Manual



All models except European models



European models

CONTENTS

Features 2
Important safeguards 3
Precautions 4
Supplied accessories 4
Before operating this unit 5
Control positions and names 6
Introduction 11
Connecting audio equipment 12
Connecting video equipment 13
Positioning speakers 15
Connecting speakers 16
Connecting optional amplifiers 17
Connecting the power 17
Connecting antennas 18
Setting up the Multi-Room Remote System 20
Multi-Room Remote Control 22
Using the on-screen display function (remote control only) 23
Setting up the speaker system 26
Listening to your favorite source 29
Tuning in a radio station 31
Using preset radio stations 32
Selecting a preset station 33
Receiving RDS broadcasts (Not available in the U.S. and other areas) 34
Entering characters 36
Recording a source 37
Using TAPE-2 MONITOR 40
Selecting a Surround mode 42
Setting the Surround mode parameters 44
TX-DS838 parameters 46
Troubleshooting guide 47
Specifications 49

Thank you for purchasing the Onkyo TX-DS838 Audio Video Control Receiver.
Please read this manual thoroughly before making connections and operating the unit.
Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new A/V Receiver.
Please retain this manual for future reference.

Features

Amplifier Features

- **100 Watts per channel into 8 ohms (stereo), 20Hz to 20kHz, 0.08% THD**
- **90 Watts per channel (left/center/right), plus 50 watts × 2 (surround)**
- **Non-NFB (negative feedback) power amplifier with dual inverted Darlington circuitry to dramatically reduce distortion**
- **Discrete power amplifier circuitry for all five channels to efforlessly drive even difficult loads**
- **Auto-switch cooling fan turns on only under heavy loads**
- **18-Bit Delta Sigma D/A and A/D converters for greater accuracy**
- **Midbass control to fine tune the mid-range response**
- **A/B Speaker selector and outputs**

Audio/Video Features

- **Built-in Dolby Digital (AC-3) Surround decoder**
- **Dolby Pro Logic Surround Sound**
- **Powerful, precise, latest generation 24-bit Motorola 56009 and 56004 DSP chips work in unison to provide effortless DSP performance and dramatically improved processing capacity**
- **12 Surround modes: Dolby Digital (AC-3) Surround, AC-3 Action, AC-3 Drama, AC-3 Musical, Dolby Pro Logic, Pro Logic Action, Pro Logic Drama, Pro Logic Musical, Hall, Live, Arena, Stadium**
- **New user-friendly 3-page onscreen display**
- **Lucasfilm cinema Re-Equalization circuitry**
- **Midnight Theater mode for late-night listening at low volume levels**
- **4 S-VIDEO inputs**
- **Front panel gold-plated video input with S-video connector (Video 4)**
- **4 Gold-plated audio inputs and 4 gold-plated composite video inputs**
- **3 Digital inputs (AC-3 RF/optical/coaxial)**
- **Intelligent Power Management (IPM) turns ON/OFF entire A/V system with TV power button**
- **8 Pre Out jacks for a powered subwoofer and external amplifiers**
- **Rec Out selector for recording while listening to different sources**

General Features

- **Multiroom and multisource capability (U.S. and Canadian models are compatible with Xantech products)**
- **4-Mode display dimmer (bright, normal, dim, off)**
- **Sleep timer (remote)**
- **3 Switched AC outlets (USA and Canada); 2 switched AC outlets (Europe)**
- **Preprogrammed remote stands on its own to locate easily**

Tuner Features

- **40 AM/FM random presets with four-group classification**
- **Direct access tuning**
- **Automatic FM scanning**
- **8-Character input**
- **RDS with PS/PTY/TP/RT (European models)**

FOR USA MODEL

Note to CATV system installer:

- This reminder is provided to call the CATV system installer's attention to Section 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

FCC INFORMATION FOR USER

CAUTION:

- Changes or modifications not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment.

NOTE:

- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between other equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which other receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.

FOR CANADIAN MODEL: (POUR LE MODELE CANADIEN)

- For models having a power cord with a polarized plug.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

- THIS DIGITAL APPARATUS DOES NOT EXCEED THE CLASS B LIMITS FOR RADIO NOISE EMISSION FROM DIGITAL APPARATUS SET OUT IN THE RADIO INTERFERENCE REGULATIONS OF THE CANADIAN DEPARTMENT OF COMMUNICATIONS.

- Sur les modèles dont la fiche est polarisée.

ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

- L'INTERFERENCE, RADIO ELECTRIQUE GENEREE PAR CET APPAREIL NUMERIQUE DE TYPE B NE DEPASSE PAS LES LIMITES ENONCEES DANS LE REGLEMENT SUL LES PERTURBATIONS RADIO ELECTRIQUES, SECTION APPAREIL NUMERIQUE, DU MINISTERE DES COMMUNICATIONS.

Declaration of Conformity

We, ONKYO EUROPE
ELECTRONICS GMBH
INDUSTRIESTRASSE 18/20
82110 GERMERING,
GERMANY

CE

declare in own responsibility, that the ONKYO product described in this instruction manual is in compliance with the corresponding technical standards such as EN55013,EN55020,EN60555-2, EN60065

GERMERING,GERMANY

H. YAMAZOE

ONKYO EUROPE ELECTRONICS GMBH

"WARNING"

"TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

CAUTION:

"TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL."

- The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

- The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Important safeguards

1. **Read Instructions** – All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** – The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** – All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** – All operating and use instructions should be followed.
5. **Water and Moisture** – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. **Carts and Stands** – The appliance should be used only with a cart or stand that is recommended by the manufacturer.

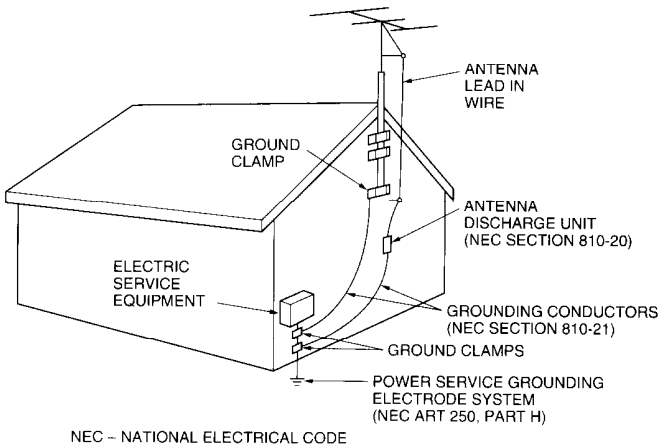
6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

PORTABLE CART WARNING

S3125A

7. **Wall or Ceiling Mounting** – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. **Ventilation** – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or if placed in a built-in installation, such as a book case or cabinet that may impede the flow of air through the ventilation openings, there should be free space of at least 20 cm and open up behind the appliance.
9. **Heat** – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. **Power Sources** – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. **Polarization** – If the appliance is provided with a polarized plug having one blade wider than the other, please read the following information: The polarization of the plug is a safety feature. The polarized plug will only fit the outlet one way. If the plug does not fit fully into the outlet, try reversing it. If there is still trouble inserting it, the user should seek the services of a qualified electrician. Under no circumstances should the user attempt to defeat the polarization of the plug.
12. **Power-Cord Protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, especially near plugs, convenience receptacles, and the point where they exit from the appliance.
13. **Cleaning** – The appliance should be cleaned only as recommended by the manufacturer.
14. **Power Lines** – An outdoor antenna should be located away from power lines.
15. **Nonuse Periods** – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
16. **Object and Liquid Entry** – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
17. **Damage Requiring Service** – The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damaged.
18. **Servicing** – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
19. **Outdoor Antenna Grounding** – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of the antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure 73.1.

FIGURE 73.1:
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE


ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)
NEC – NATIONAL ELECTRICAL CODE

S2898A

Precautions

1. Warranty claim
You can find the serial number on the rear panel. In case of warranty claim, please report this number.

2. Recording copyright
Recording of copyrighted material for other than personal use is illegal without permission of the copyright holder.

3. AC fuse
The fuse is located inside the chassis and is not user-serviceable. If power does not come on, contact your Onkyo authorized service station.

4. Care
From time to time you should wipe the front and rear panels and the cabinet with a soft cloth. For heavier dirt, dampen a soft cloth in a weak solution of mild detergent and water, wring it out dry, and wipe off the dirt. Following this, dry immediately with a clean cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since these could damage the finish or remove the panel lettering.

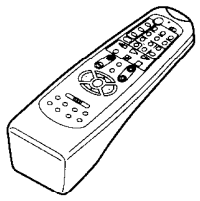
5. Power
WARNING
BEFORE PLUGGING IN THE UNIT FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.

- Some models are designed for use only with the power supply voltage of the region where they are sold.
  U.S. and Canadian models: AC 120 V, 60 Hz
  European models: AC 230 V, 50 Hz
  Worldwide model: AC 120 V/220 – 230 V switchable, 50/60 Hz
- Voltage selector (Rear panel)
  Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before turning the power button on. (Refer to *Setting the voltage selector (worldwide model only)* and *Setting the tuning step frequency (worldwide model only)* on page 5.) Models without a voltage selector can only be used in areas where the power supply is the same as that of the unit.

Memory Preservation
This unit does not require memory preservation batteries. A built-in memory power back-up system preserves the contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in order to charge the back-up system. The memory preservation period after the unit has been unplugged varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of a few weeks after the last time the unit has been unplugged. This period is shorter when the unit is exposed to a highly humid climate.

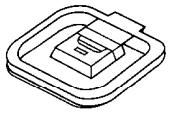
Dolby Surround DOLBY DIGITAL
Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", "AC-3", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Copyright 1992 Dolby Laboratories, Inc. All rights reserved.

Supplied accessories



1 Remote control
U.S. & Canada: RC-P101S
Other areas: RC-P201S

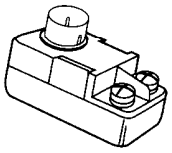
2 Batteries
(size AA, R6, or UM-3)



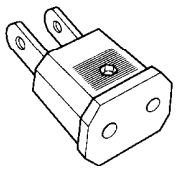
1 AM loop antenna

1 T-shaped FM antenna

Worldwide model only:

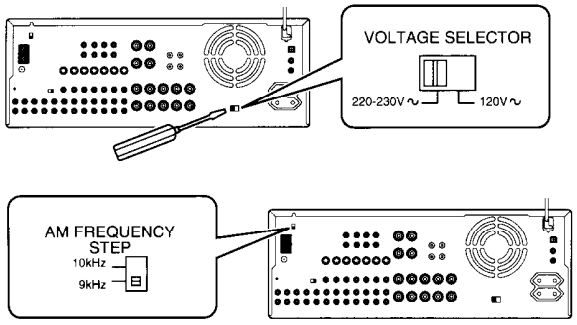


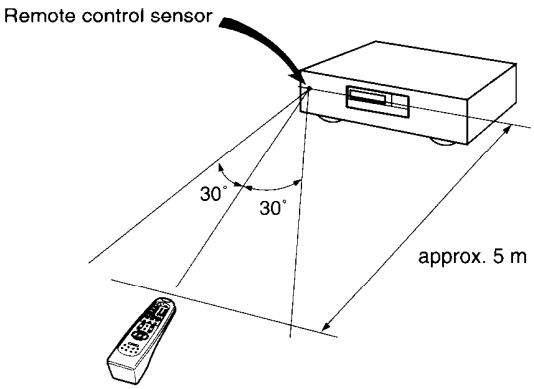
1 75/300 ohm antenna adaptor



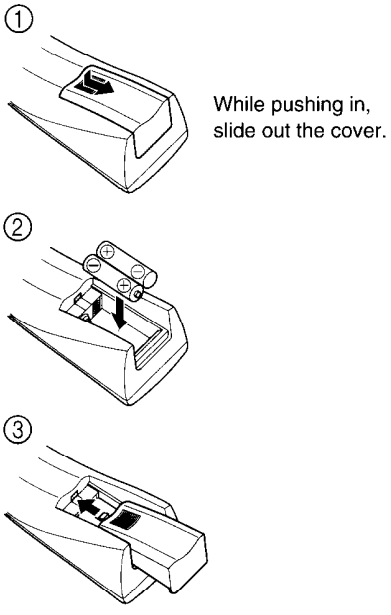
1 Conversion plug (Shape may vary according to the area where purchased.)

Before operating this unit





Insert the batteries into the remote control according to the illustration.



Setting the voltage selector (worldwide model only)

1. Determine the proper voltage for your area: 220 ~ 230 V or 120 V.
2. If the setting on the voltage selector is not correct, insert a screwdriver into the groove in the switch and slide the switch completely to the right (120 V) or the left (220 ~ 230 V), whichever is appropriate.

Setting the tuning step frequency (worldwide model only)

The worldwide model is equipped with a switch that controls the AM (9 kHz/10 kHz) band tuning steps.
Please set this switch to match the tuning step frequency in your area.

U.S. & Canada: 10 kHz
Other areas: 9 kHz

Using the remote control

The following information will help you get optimal use from the remote control.

- Place this unit away from direct bright light which can prevent proper operation of the remote control.
- Make sure audio rack doors do not have tinted glass. Placing this unit behind such a door may prevent proper remote control operation.

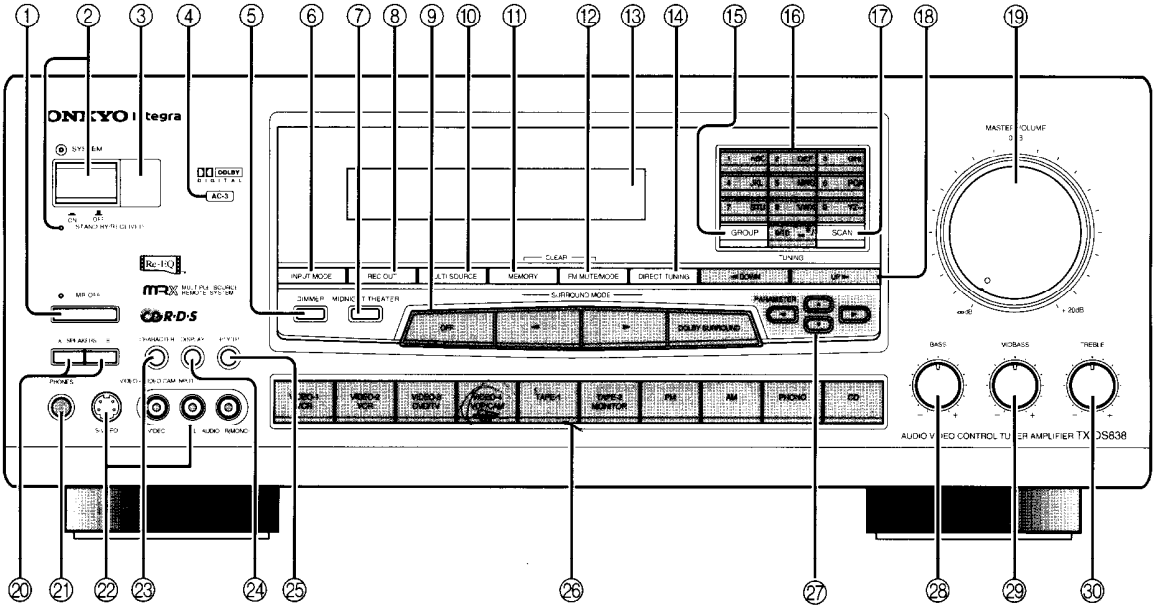
Loading the batteries

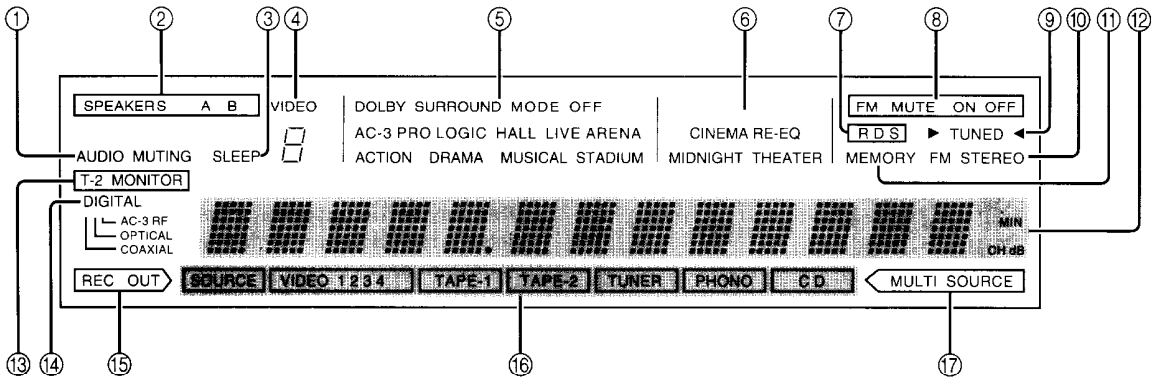
Remove the battery compartment cover by opening it as shown in the illustration. Load two AA (R6 or UM-3)-size batteries into the remote control with the plus (+) and minus (–) terminals positioned as indicated by the diagram inside the battery compartment, then close the cover.

- When the batteries lose their power, the indicator on the remote control will flash each time a button is pressed.
- Immediately remove empty batteries to avoid corrosion damage.
- To avoid potential corrosion damage, never mix old batteries with new ones.
- The entered codes of other brands of video equipment are not lost even when the batteries are replaced.
  They may be lost, however, if battery replacement is not completed within an hour. In this case, the codes must again be entered in the unit.
- The manganese batteries supplied with this unit have a service life of approximately six months, depending on the frequency of use.
- The TX-DS838 comes equipped with two AA (R6 or UM-3) manganese batteries, but we recommend that long-life AA (LR6 or AM-3) size alkaline batteries be used when replacing the batteries.

Control positions and names

For more information about the buttons and controls, refer to the page numbers appearing in brackets after each item.





Control positions and names

Front panel

① **MR OFF (Multi-Room Remote System on/off) button and indicator [22]**

② **POWER switch and POWER indicator (SYSTEM switch and SYSTEM indicator on the European models) and STAND-BY/RECEIVED indicator [17, 29]**

The STAND-BY/RECEIVED indicator lights up each time a signal is received from the remote control.

③ **Remote control sensor [5]**

④ **AC-3 indicator [42]**

⑤ **DIMMER button**

Used to change the brightness of the display in four steps (bright, medium, dim and off). If a function is set with the display turned off, the display will light up for a few seconds, and then go off.

⑥ **INPUT MODE button [29]**

⑦ **MIDNIGHT THEATER button [45]**

⑧ **REC OUT (record out) button [37~38]**

⑨ **SURROUND MODE buttons [42]**

OFF: Switches between the stereo and Surround modes.

◀/▶: Used to select the desired Surround mode.

DOLBY SURROUND:
Used to select the desired AC-3 or PRO LOGIC Surround mode.

⑩ **MULTI SOURCE button [22]**

⑪ **MEMORY button [32]**

⑫ **FM MUTE/MODE button [31]**

⑬ **Display**

⑭ **DIRECT TUNING button [31]**

⑮ **GROUP button [32~33]**

⑯ **1 ~ 9, 0/10 and character buttons [31~33]**

⑰ **SCAN button [33]**

⑱ **◀ DOWN, UP ▶ TUNING buttons [31, 35, 36, 39]**

⑲ **MASTER VOLUME control knob and indicator [29]**

Correctly calibrated, the 0 dB position corresponds to the volume level in a film mixing room during the production of a soundtrack.

The MASTER VOLUME control knob simultaneously adjusts the volume of the front, center and Surround speakers and the PRE OUT outputs (but not the multi-source output). Turning it clockwise increases the volume. The volume can also be adjusted using the remote control's VOL ▲/▼ buttons.

The Master Volume level settings shown on the display are: $-\infty$ dB (minimum), –58 ~ –1, 0, +1 ~ +20 dB (maximum).

Depending on the calibration, it may be impossible to set the MASTER VOLUME level to +20 dB. Even if the knob is manually turned to its maximum, it will return to its highest possible setting.

Use the remote control to adjust the multi-source level.

⑳ **SPEAKERS A/B selector buttons [29]**

Used to select the speakers. The indicator in the display for the selected speakers lights up. Speakers A and B can not be selected at the same time.

㉑ **PHONES (headphone) jack [30]**

㉒ **VIDEO-4/VIDEO CAM INPUT connectors [13]**

㉓ **CHARACTER button [36]**

㉔ **DISPLAY button [35]**

㉕ **PTY/TP (program type/traffic program) button [35]**
(European models only)

㉖ **Input selector buttons [29, 37~41, 46]**
Video: VIDEO-1 VCR, VIDEO-2 VCR, VIDEO-3 DVD/TV, VIDEO-4 VDP/CAM
Audio: TAPE-1, TAPE-2 MONITOR, FM, AM, PHONO, CD

㉗ **PARAMETER buttons [26, 28, 42, 46]**

㉘ **BASS control knob [29]**

㉙ **MIDBASS control knob [29]**

㉚ **TREBLE control knob [29]**

Display

① **AUDIO MUTING indicator**

② **SPEAKERS A/B selector indicators**

③ **SLEEP indicator**

④ **VIDEO-1 to -4 input selector indicator**

⑤ **SURROUND MODE indicators**

⑥ **CINEMA RE-EQ and MIDNIGHT THEATER indicators**

⑦ **RDS indicator**

⑧ **FM MUTE (FM muting) ON/OFF indicators**

⑨ **TUNED indicator**

⑩ **FM STEREO indicator**

⑪ **MEMORY indicator**

⑫ **Multi-function display**

⑬ **T-2 MONITOR (Tape-2 monitor) indicator**

⑭ **INPUT MODE indicators**

⑮ **REC OUT (record out) indicator**

⑯ **Source indicators**

⑰ **MULTI SOURCE indicator**

Remote Control	U.S. & Canada:	RC-P101S
	Other areas:	RC-P201S

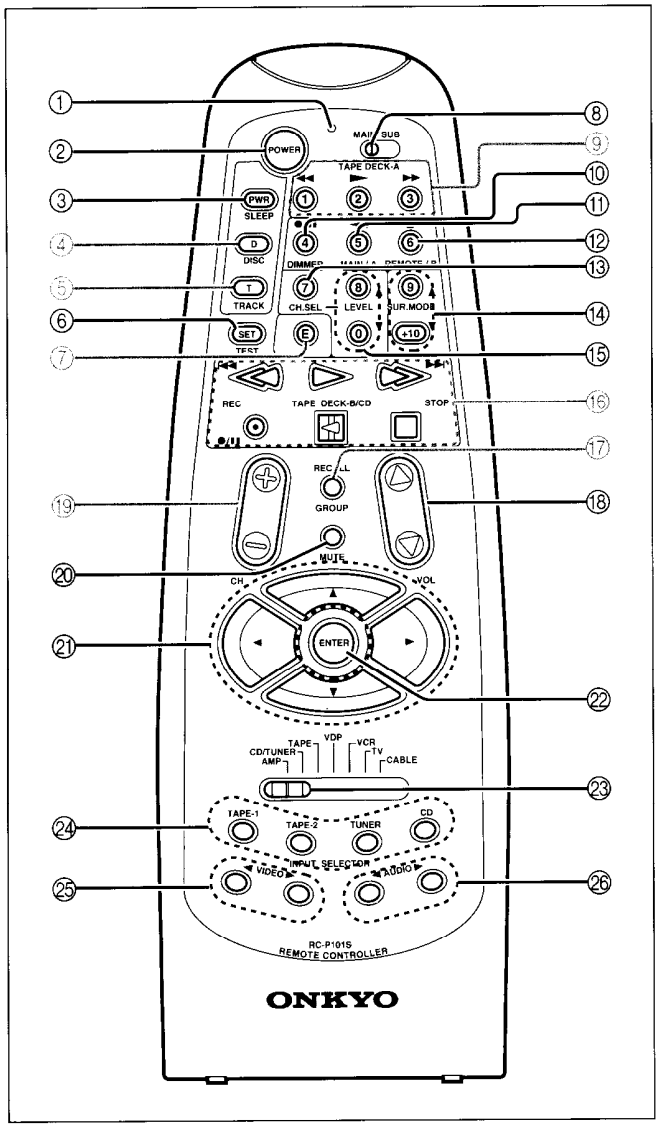
The TX-DS838's remote control can be used to operate components equipped with an Onkyo **RI** (Remote Interactive) connector and connected to the **RI** connectors on the TX-DS838. Refer to *Remote control connections* on page 12 for connection details.

The remote control can also be used to operate other brands of video equipment if the correct device code is programmed into the remote control. Refer to the Separate *Remote Controller Set-up & Code List* for details on how to program a device code.

NOTE:

European/Australian model only:

- The remote control cannot be used if the SYSTEM switch on the front panel of the TX-DS838 is set to OFF.



General controls:

These buttons are always available regardless of the device select switch ㉓ position.

① **Remote control operation indicator**

Lights up each time a button on the remote control is pressed.

② **POWER button**

Switches the TX-DS838 between stand-by status (the STAND-BY/RECEIVED indicator is lit) and power-on status (the SYSTEM indicator is lit).

⑧ **MAIN/SUB selector switch**

Switch to MAIN to use the remote control to operate the system from the main room; switch to SUB to control it from the sub-room.

⑳ **MUTE button**

Temporarily switches off the sound from the speakers, and PRE OUT and PHONES outputs, but not the MULTI-SOURCE output. The AUDIO MUTING indicator on the display flashes. Press this button again or turn the power off and on again to cancel the audio muting.

㉑ **On-screen cursor operation ◄ / ►/▲/▼ buttons**

Allow you to move the cursor in the on-screen display.

㉒ **ENTER button**

Displays the Menu screen or enters the cursor operation in the on-screen display.

㉓ **Device select switch**

Allows you to select the component that you wish to operate or to enter a remote control code.

㉔ **INPUT SELECTOR buttons**

Allow you to select from TAPE-1, TUNER or CD.

㉕ **VIDEO ◄/► buttons**

Allow you to select from VIDEO-1 through -4.

㉖ **AUDIO ◄/► buttons**

Allow you to select from TAPE-1, TUNER, PHONO or CD.

⑱ **VOL ▼/▲ buttons**

Allow you to adjust the volume level of the selected component.

AMP controls:

The following buttons can be used when the device select switch ㉓ is set to AMP.

③ **SLEEP button**

Sets the power-off timer, which turns off the power to the system after a certain period of time has passed. Press this button to display "90 MIN". With each press of this button, subtract 10 minutes from the timer setting until the desired time is displayed. Five seconds after this button is first pressed, the timer automatically starts and the SLEEP indicator on the display lights up. Press this button while the indicator is lit to display the amount of time remaining. Each time this button is pressed while the remaining time is displayed, 10 minutes are subtracted from the time. If this button is pressed while 10 minutes or less appear in the display, the sleep timer is cancelled and the power is not turned off.

⑥ **TEST button**

Starts the test tone when adjusting the volume balance between the speakers.

⑩ **DIMMER-button**

Changes the brightness of the display in four steps: bright, medium, dim and off.

⑪ **MAIN·A button**

Turns the speakers A on or off.

⑫ **REMOTE·B button**

Turns the speakers B on and off.

⑬ **CH.SEL button**

Switches between the speakers during the volume adjustment of the speakers.

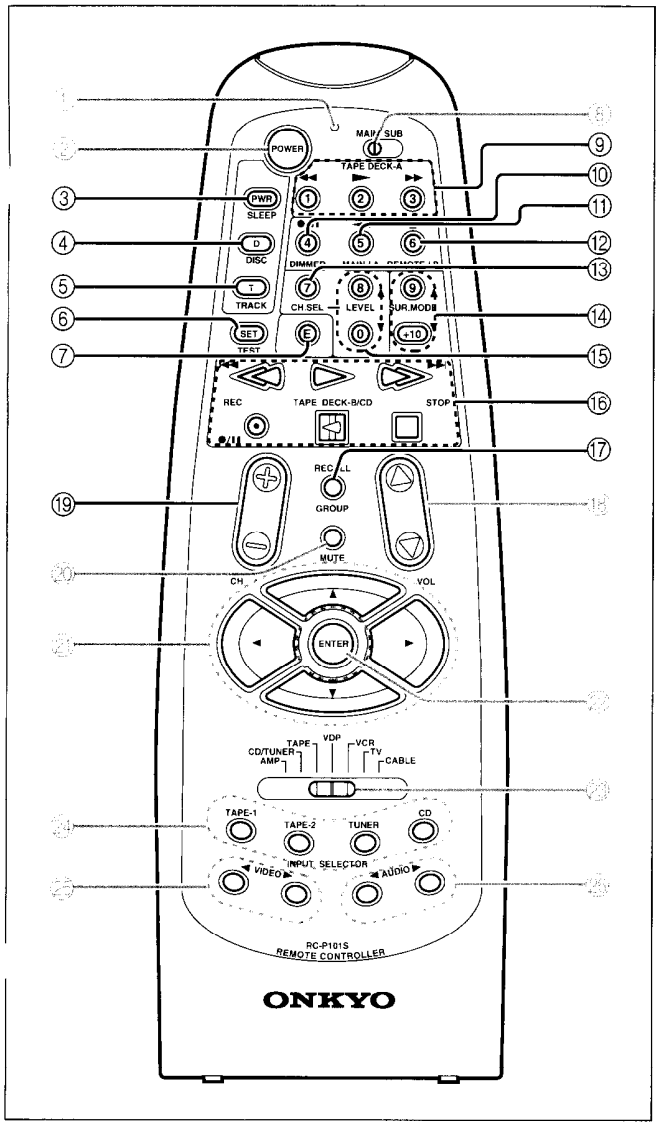
⑭ **SUR. MODE ▲/▼ buttons**

Allow you to select the Surround mode.

⑮ **LEVEL ▲/▼ buttons**

Adjust the playback level of the speakers.

Control positions and names



CD/TUNER controls:

The following buttons can be used when the device select switch ㉓ is set to CD/TUNER.

③ SLEEP button
Refer to the explanation for this button under AMP controls.

④ D button
Allows you to specify a disc number for discs in the CD changer.

⑤ T button
Allows you to use the number keys to specify a track on the CD.

⑨~⑮ Number buttons (0, 1~9) and +10 button
Function as number keys.

⑯ CD buttons
Function as operating buttons.

◀◀ Down ▷ Playback
▶▶ Up ▷II Pause
□ Stop

⑰ GROUP button
Allows you to select a group (A, B, C or D) for the tuner preset memory.

⑲ CH +/– buttons
Allow you to select a preset FM or AM station.

TAPE (tape deck) controls:

The following buttons can be used when the device select switch ㉓ is set to TAPE.

③ SLEEP button
Refer to the explanation for this button under AMP controls.

⑨ ◀◀, ▶ and ▶▶ buttons
Function as rewind (◀◀), forward playback (▶), and fast forward (▶▶) buttons for Tape Deck-A.

⑩ ●/II button
Functions as a record and pause button for Tape Deck-A.

⑪ ◀ button
Functions as a reverse playback button for Tape Deck-A.

⑫ ■ button
Functions as a stop button for Tape Deck-A.

⑯ TAPE DECK-B buttons
Function as operating buttons for Tape Deck-B.

◀◀ Fast rewind ▷ Forward playback
▶▶ Fast forward ●/II Rec/pause
▷II Reverse playback □ Stop

VDP (video disc player) controls:

The following buttons can be used when the device select switch ㉓ is set to VDP.

③ PWR button
Turns on and off the power.

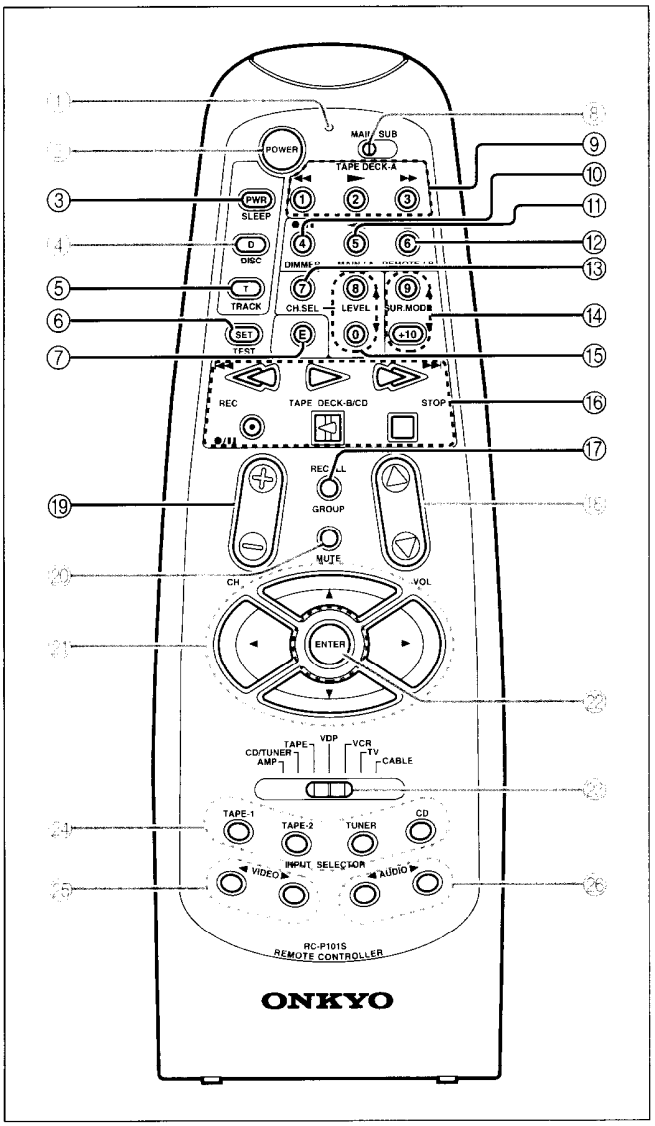
⑥ SET button
Allows you to start programming the video device codes of other brands in order to operate them using this remote control.

⑦ Enter button
Allows you to enter other brands' video device codes into this remote control.

⑨~⑮ Number buttons (0, 1~9) and +10 button
Function as number keys.

⑯ Operation buttons
Function as operating buttons.

◀◀ Fast rewind ▷ Playback
▶▶ Fast forward ▷II Pause
□ Stop



VCR (video cassette recorder) controls:

The following buttons can be used when the device select switch ㉓ is set to VCR.

③ **PWR button**
Turns on and off the power.

⑤ **T button**
Toggles between the VCR and TV screens.

⑥ **SET button**
Refer to the explanation for this button under VDP controls.

⑦ **Enter button**
Refer to the explanation for this button under VDP controls.

⑨~⑮ **Number buttons (0, 1~9) and +10 button**
Function as number keys.

⑯ **Operation buttons**
Function as operating buttons.

◁◁	Fast rewind	▷	Forward playback
▷▷	Fast forward	●/II	Rec/pause
◁	Reverse playback	□	Stop

⑲ **CH +/– buttons**
Allow you to select a channel.

TV controls:

The following buttons can be used when the device select switch ㉓ is set to TV.

③ **PWR button**
Turns on and off the power.

⑤ **T button**
Toggles between the VCR and TV screens.

⑥ **SET button**
Refer to the explanation for this button under VDP controls.

⑦ **Enter button**
Refer to the explanation for this button under VDP controls.

⑨~⑮ **Number buttons (0, 1~9) and +10 button**
Function as number keys.

⑰ **RECALL button**
Allows you to recall a previously selected channel.

⑲ **CH +/– buttons**
Allow you to select a channel.

CABLE controls:

The following buttons can be used when the device select switch ㉓ is set to CABLE.

③ **PWR button**
Turns on and off the power.

⑥ **SET button**
Refer to the explanation for this button under VDP controls.

⑦ **Enter button**
Refer to the explanation for this button under VDP controls.

⑨~⑮ **Number buttons (0, 1~9) and +10 button**
Function as number keys.

⑰ **RECALL button**
Allows you to recall a previously selected channel.

⑲ **CH +/– buttons**
Allow you to select a channel.

Introduction

Surround System

Since the TX-DS838 is equipped with front, center and Surround amplifiers, Dolby Digital, Dolby Pro Logic, Hall, Live, Arena and Stadium Surround effects can be produced. You can enjoy the feeling of a movie theater, concert hall or ball game ground in your own room.

DOLBY PRO LOGIC Surround (DOLBY SURROUND PRO LOGIC)

Many motion pictures produced have been released in the 4-channel "Dolby Stereo" sound, with music, dialogue, and panned effects coming from the 3-channel front soundstage, and Surround effects and ambience emanating from the sides and rear of the theater.

The motion picture masters are used for production of stereo VHS, VHS-Hi-Fi, Beta Hi-Fi, and stereo laser discs that you can buy or rent at your video store.

Dolby Digital (AC-3) (DOLBY DIGITAL)

Dolby Digital (AC-3) is a new-generation digital audio format for multi-channel Surround audio. With this digital audio format, you can create a five full-range channel system which is a developed version of the conventional Surround system (left, center, right, and only one Surround channel).

Adding to its five full-range channels, Dolby Digital (AC-3) supports an LFE (low frequency effect) channel, which is used solely for low frequency sounds independent of the other channels. Dolby Digital (AC-3) is sometimes referred to as a "5.1" channel format since this LFE channel is indicated as 0.1.

This fully discrete 5.1 channel Dolby Digital (AC-3) can reproduce sound of a wide and dynamic range, changing your room into a home theater.

Dolby Digital (AC-3) technology is implemented in such media as laser discs, DVDs (digital video discs), CATV (cable television), DBS (direct broadcasting), and HDTVs (high definition televisions).

ACTION, DRAMA and MUSICAL Surround

These three movie genre modes use Dolby Digital or Dolby Pro Logic Surround decoding in addition to Onkyo processing to enhance the best quality of the source.

AC-3 or PRO LOGIC ACTION:	for software which emphasizes the special effects
AC-3 or PRO LOGIC DRAMA:	for software which emphasizes the dialog
AC-3 or PRO LOGIC MUSICAL:	for software which emphasizes the music

HALL Surround

This mode is especially suited for media already having a substantial amount of reverb sound such as classical music since it simulates the atmosphere of a concert hall.

LIVE Surround

This mode reproduces the feeling of a live performance.

ARENA Surround

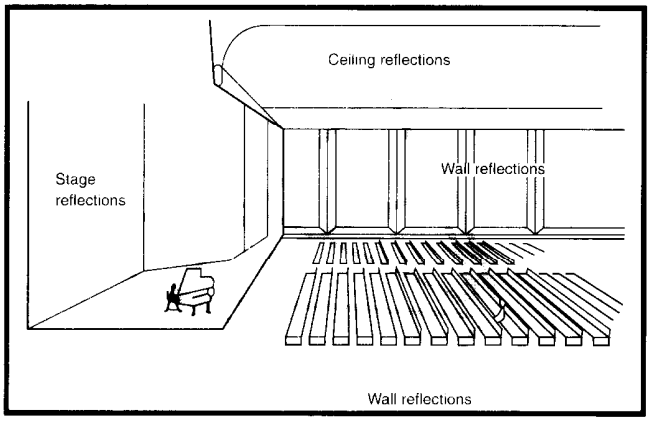
This mode recreates the mood of listening to a concert in a domed stadium.

STADIUM Surround

This mode is best when watching a live sporting event since it removes the announcer's voice simulating the feel of being in a stadium.

DSP (digital signal processor)

The DSP converts the musical signal into digital form and produces reflected sound from the digital signal. This is applied to the musical signal to yield an effect approaching that of a live performance.



NOTE:

- The concert hall effect is produced from the reflections and reverberations contained in the original recording. These are converted into reflected sound that is reproduced from four directions. Thus, in some cases an unnatural impression can be conveyed if there are too few reflections in the recording or if the effects in the original recording were produced artificially.
- The concert hall effect is not merely an artificial reverberation unit, but a sophisticated effect that spreads existing reverberation around.

Multi-Room Remote System (MR)

Using the Multi-Room Remote System equipment, you can operate all components connected to the TX-DS838 from either the main room or the sub-room. (Refer to pages 20 to 22 for more details.)

The following equipment (sold separately) is essential for using the Onkyo Multi-Room System:

USA & Canada:

* Onkyo's Multi-Room System kits HKT-600, HKT-700 (IR Remote Control Extension System) and
* Xantech's Multi-Room System

Other area:

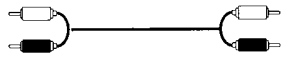
* Sensor Unit: Model No. HR-10
* Remote Emitter: Model No. HE-50 (AC)
* Remote Emitter Head: Model No. HE-10

The following secondary remote control can be used to operate the system from the sub room:

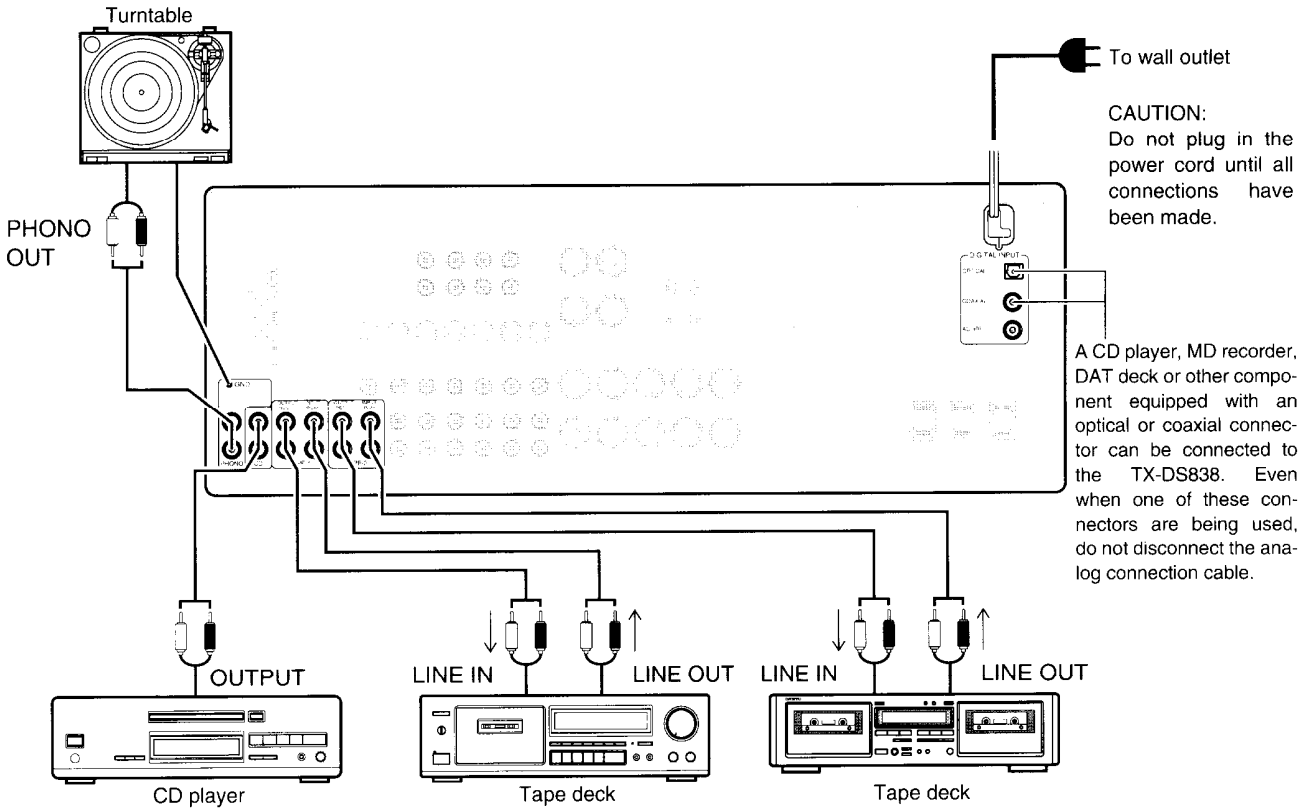
* Secondary Remote Control for Multi-Room Remote System: Model No. RC-MR1H

Consult your nearest Onkyo service center when replacing your Onkyo Multi-Room System with a Xantech Multi-Room System.

Connecting audio equipment



Refer to the instruction manual of each component when making connections.
On each pair of connectors, the lower connector (red and marked R) corresponds to the right channel and the upper connector (white and marked L) to the left channel.

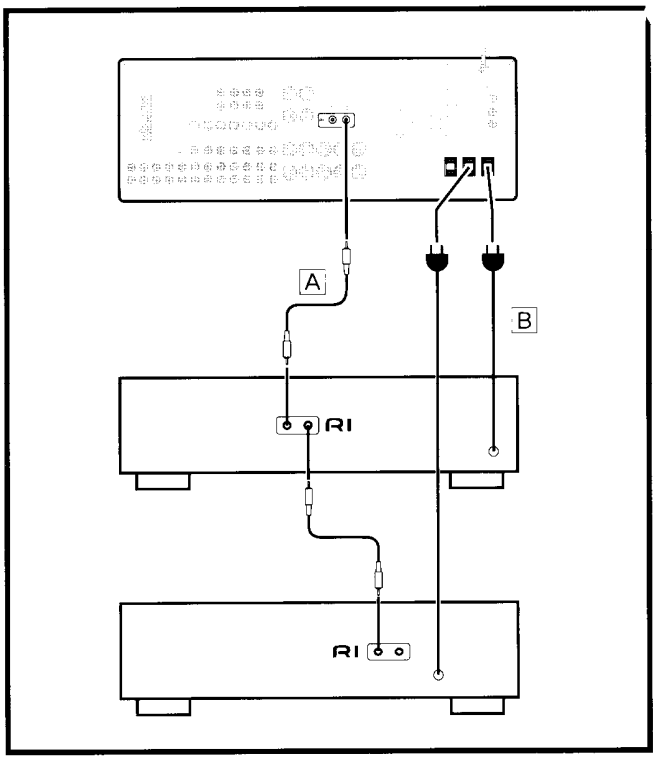

Turntable
PHONO OUT
To wall outlet
CAUTION:
Do not plug in the power cord until all connections have been made.
A CD player, MD recorder, DAT deck or other component equipped with an optical or coaxial connector can be connected to the TX-DS838. Even when one of these connectors are being used, do not disconnect the analog connection cable.
OUTPUT
LINE IN
LINE OUT
LINE IN
LINE OUT
CD player
Tape deck
Tape deck

Remote control connections A

Cassette tape decks and a compact disc player that are equipped with an Onkyo RI connector can be operated using the remote control included with this unit.
To enable remote control operation of other components, connect the remote control cable as shown at the right.
Connect the remote control cable to the black connector with the RI mark, never connect it to the green or gray connector with the MR mark.

NOTE:

- To enable proper remote control operation, both the RI cables and the audio cables must be connected to the units.
- This unit's remote control cannot be used to control Onkyo turntables.
- An RI remote control cable equipped with 1/8" (3.5 mm) mini jacks is included with any other component installed with an RI connector.



AC outlet connections B

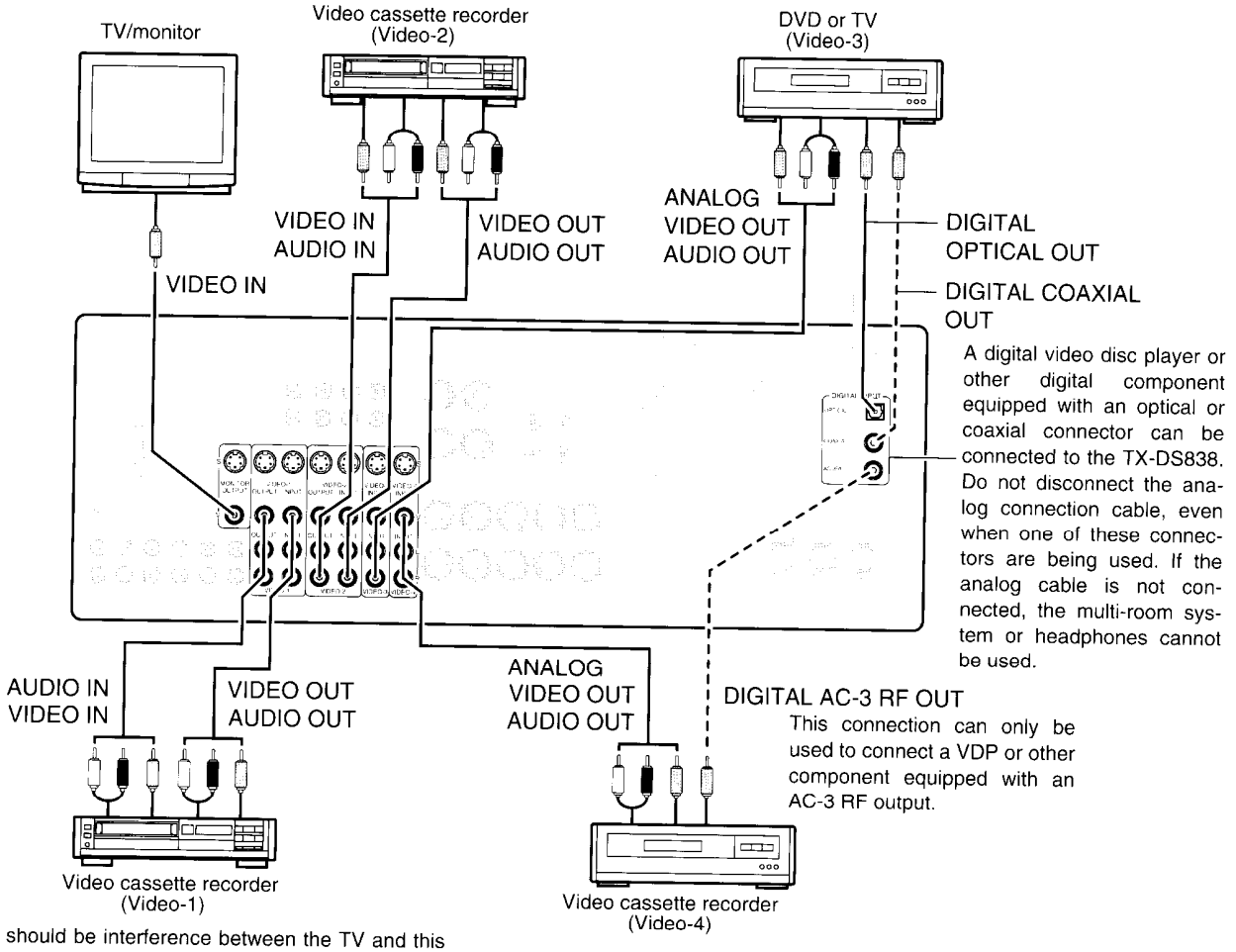
The power to components connected to the SWITCHED outlet is turned on and off using the power buttons on the front panel and remote control.

NOTE:

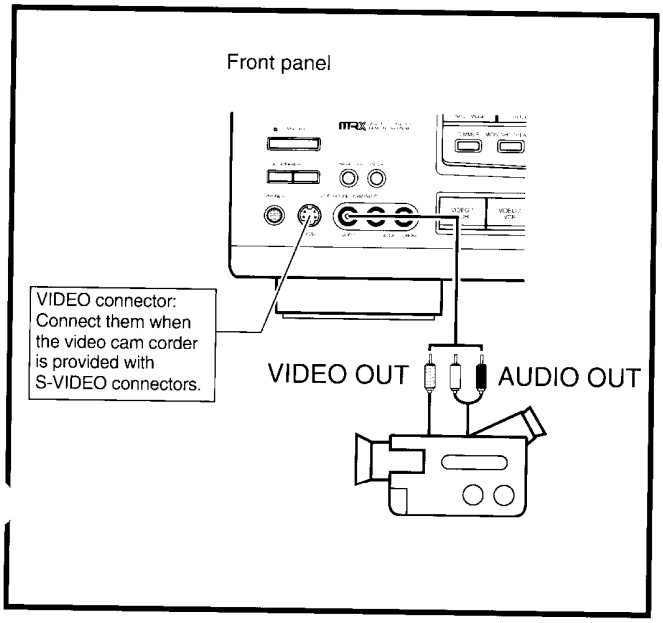
- The shape, number and total capacity of the AC outlets may differ according to the model and the area where the unit is purchased. Be careful that other components connected to this unit do not exceed the capacity that is printed on the rear panel above the AC outlets.

Connecting video equipment

Refer to the instruction manual of each component when making connections.
On each pair of connectors, the lower connector (red and marked R) corresponds to the right channel and the upper connector (white and marked L) to the left channel.


TV/monitor
Video cassette recorder (Video-2)
DVD or TV (Video-3)
VIDEO IN
AUDIO IN
VIDEO OUT
AUDIO OUT
ANALOG
VIDEO OUT
AUDIO OUT
DIGITAL OPTICAL OUT
DIGITAL COAXIAL OUT
VIDEO IN
A digital video disc player or other digital component equipped with an optical or coaxial connector can be connected to the TX-DS838. Do not disconnect the analog connection cable, even when one of these connectors are being used. If the analog cable is not connected, the multi-room system or headphones cannot be used.
AUDIO IN
VIDEO IN
VIDEO OUT
AUDIO OUT
ANALOG
VIDEO OUT
AUDIO OUT
DIGITAL AC-3 RF OUT
This connection can only be used to connect a VDP or other component equipped with an AC-3 RF output.
Video cassette recorder (Video-1)
Video cassette recorder (Video-4)

If there should be interference between the TV and this unit, place this unit as far from the TV as possible. We do not recommend the use of a common TV/FM antenna. (Refer to *Connecting antennas* on page 19.)


Front panel
VIDEO connector: Connect them when the video cam corder is provided with S-VIDEO connectors.
VIDEO OUT
AUDIO OUT

VIDEO-4/CAMCORDER

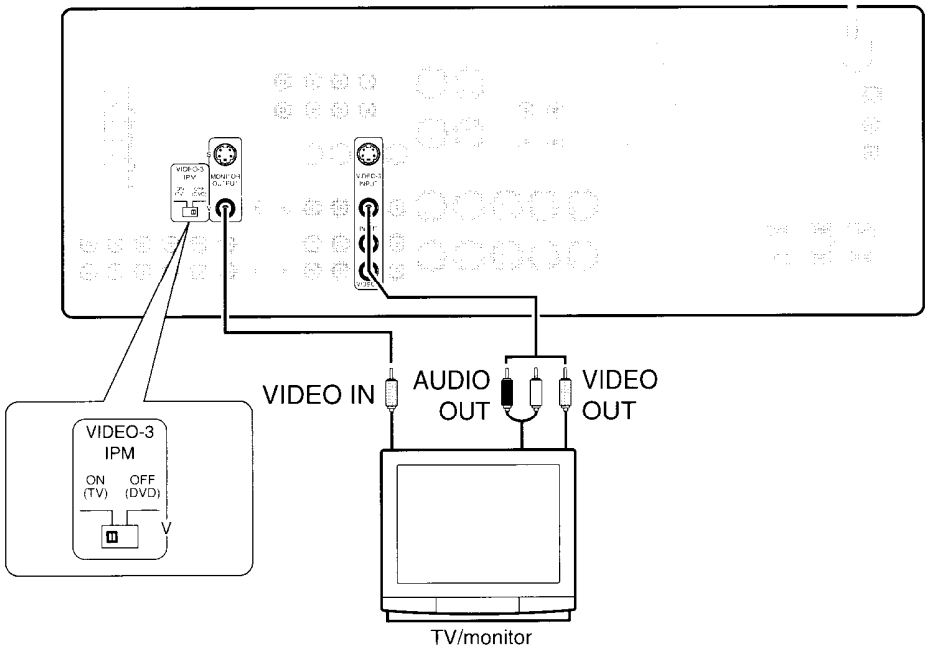
There are VIDEO-4 INPUT connectors on both the front and rear panels. When a component is connected to the VIDEO-4/VIDEO CAM INPUT connector on the front panel, the component connected to the VIDEO-4 INPUT connector on the rear panel cannot be operated.
When using a playback-only VCR, connect its output to the TX-DS838's video input connector.

NOTE:

- When the video equipment is monaural, connect its audio output to the right (R) AUDIO input connector on this unit.
- If a VDP's AC-3 RF output is connected to the TX-DS838's AC-3 RF DIGITAL INPUT connector, also connect the VDP's analog output to this unit's VIDEO-4 INPUT connectors. If a Dolby Digital (AC-3) laser disc is played back, the sound will automatically be reproduced in Dolby Digital (AC-3).

Connecting video equipment

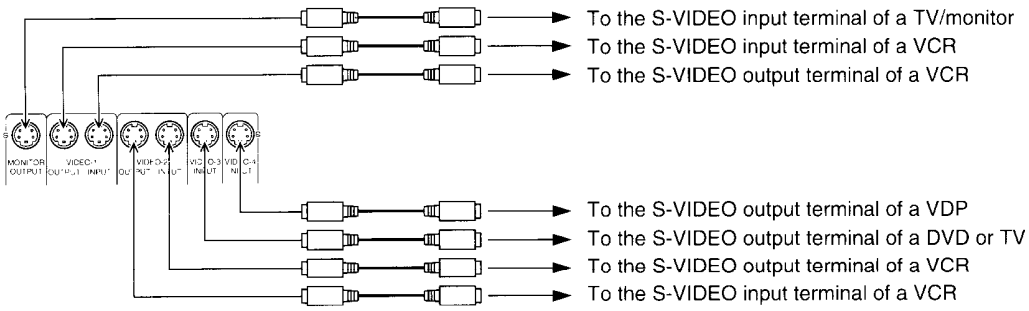
The TX-DS838 is equipped with an IPM system, which automatically turns on the receiver's power 3 to 5 seconds after the TV is turned on, and turns off the receiver's power 5 seconds after the TV is turned off. To use this function, connect the TV or monitor to the VIDEO-3 INPUT connectors as shown in the illustration below.

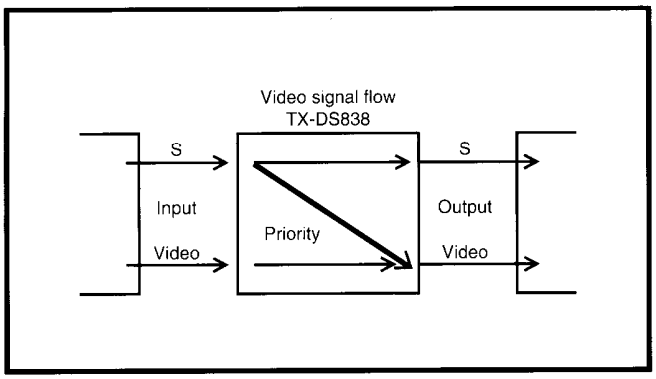


NOTE:

- The IPM function does not operate if the TV/monitor screen is blank (i.e. no picture appears) after the TV is turned on or before it is turned off.
- If the TV goes off, "•" flashes on the left side of the TX-DS838's display and five minutes later it also turns off.

S-VIDEO connectors


To the S-VIDEO input terminal of a TV/monitor
To the S-VIDEO input terminal of a VCR
To the S-VIDEO output terminal of a VCR
To the S-VIDEO output terminal of a VDP
To the S-VIDEO output terminal of a DVD or TV
To the S-VIDEO output terminal of a VCR
To the S-VIDEO input terminal of a VCR



Video and S-VIDEO input and output priority

A signal fed into the S-VIDEO input connector will be output to the MONITOR OUTPUT from both the S-VIDEO and the normal video connectors. However, a signal fed into the normal video connector will be output only from the normal video connector.

NOTE:

- When video equipment or a TV/monitor with an S-VIDEO input is connected to both the S-VIDEO output connector and the normal video output connector, some models automatically select recording or playback via the S-VIDEO connection (S-VIDEO connector input has priority).

Positioning speakers

Speaker placement plays an important role in the reproduction of Surround sound. The manner in which the speakers are placed varies depending on the size of the room and the wall coverings used in the room. The illustration below shows an example of a layout for standard speaker placement. Refer to this example when positioning the speakers in order to experience the best of Surround sound.

Standard speaker placement

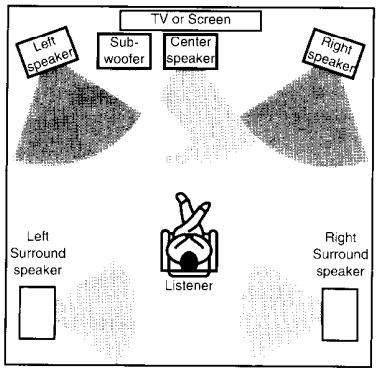
For ideal Surround effects, all speakers should be installed. If a center speaker or subwoofer is not connected, the sound from the unused channel is properly distributed to the connected speakers in order to produce the best Surround sound possible.

Front: The left, right and center speakers should face the seated listener and be placed at ear level. The center speaker produces a richer sound image by enhancing the perception of the sound's source and movement.

Surround: Place the left and right Surround speakers 1 m (3 feet) above the listener's ear level and toward the sides of the room, making sure that the listener is within the speakers' dispersion angle. These speakers produce the feel of a moving sound while generating the sensation of being in the middle of the action.

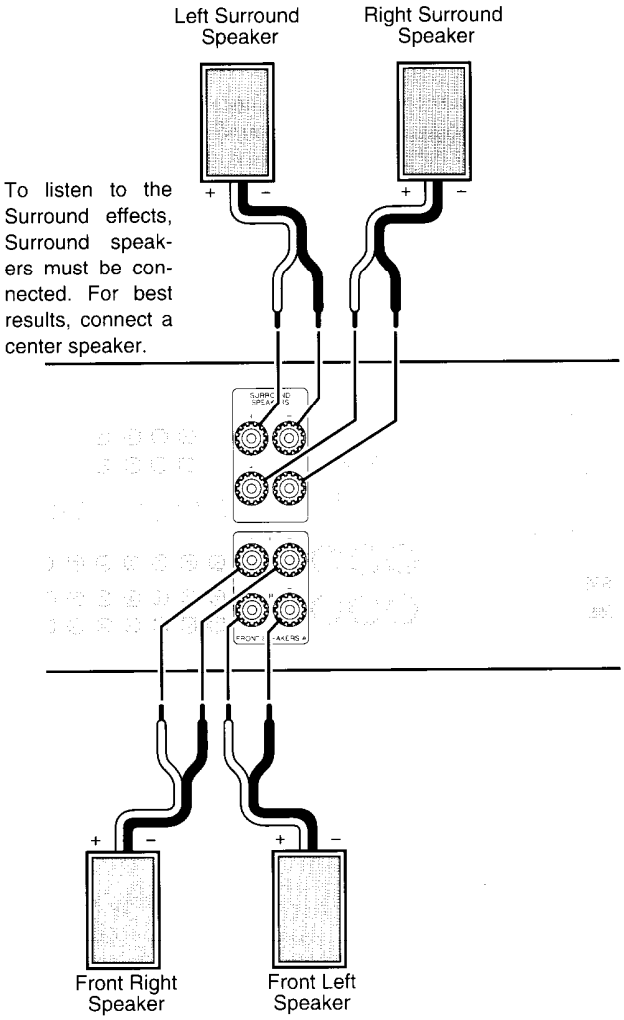
Subwoofer: Install a subwoofer with a built-in power amplifier for powerful bass sounds. The placement of the subwoofer does not affect the final quality of the sound image too much, so you can install it with the room layout in mind.

Refer to the speaker instruction manual for more details.

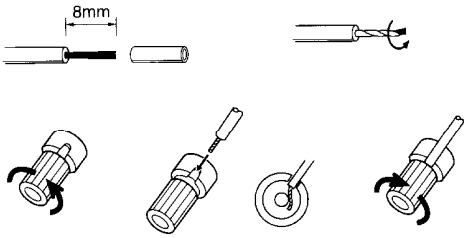


Connecting speakers

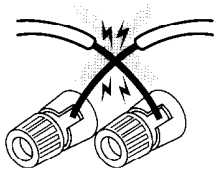
Front and Surround speakers


Left Surround Speaker
Right Surround Speaker
To listen to the Surround effects, Surround speakers must be connected. For best results, connect a center speaker.
Front Right Speaker
Front Left Speaker

Connecting speaker cables



NO



NOTE:

- To prevent damage to circuitry, never short-circuit the positive (+) and negative (–) speaker wires.

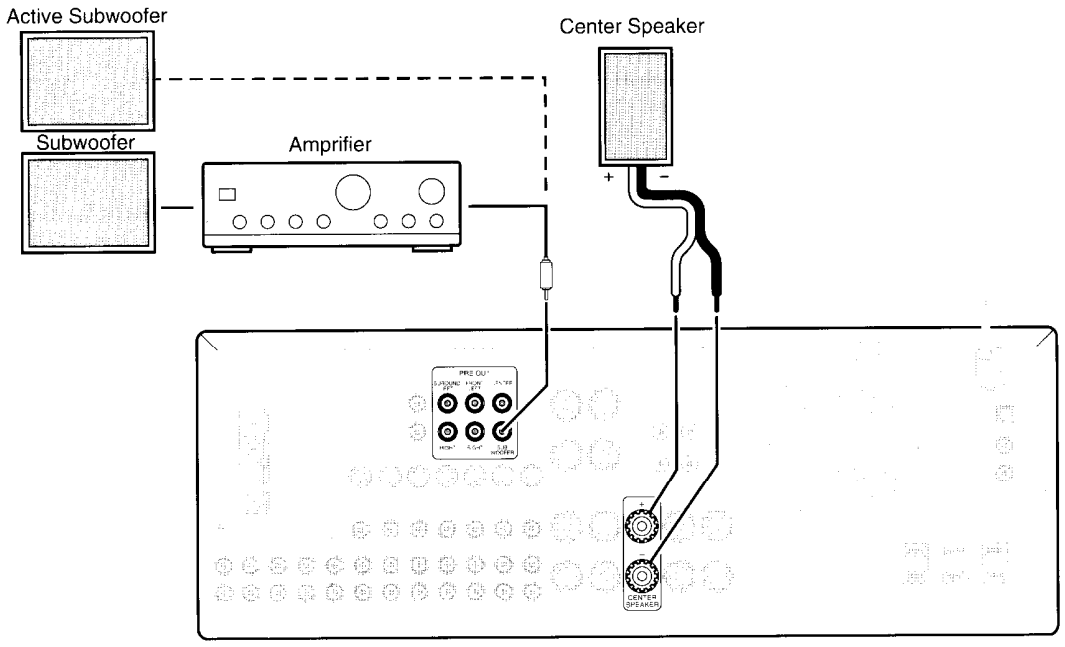
B terminals

Use these terminals to connect a second pair of front speakers.

Speaker impedance

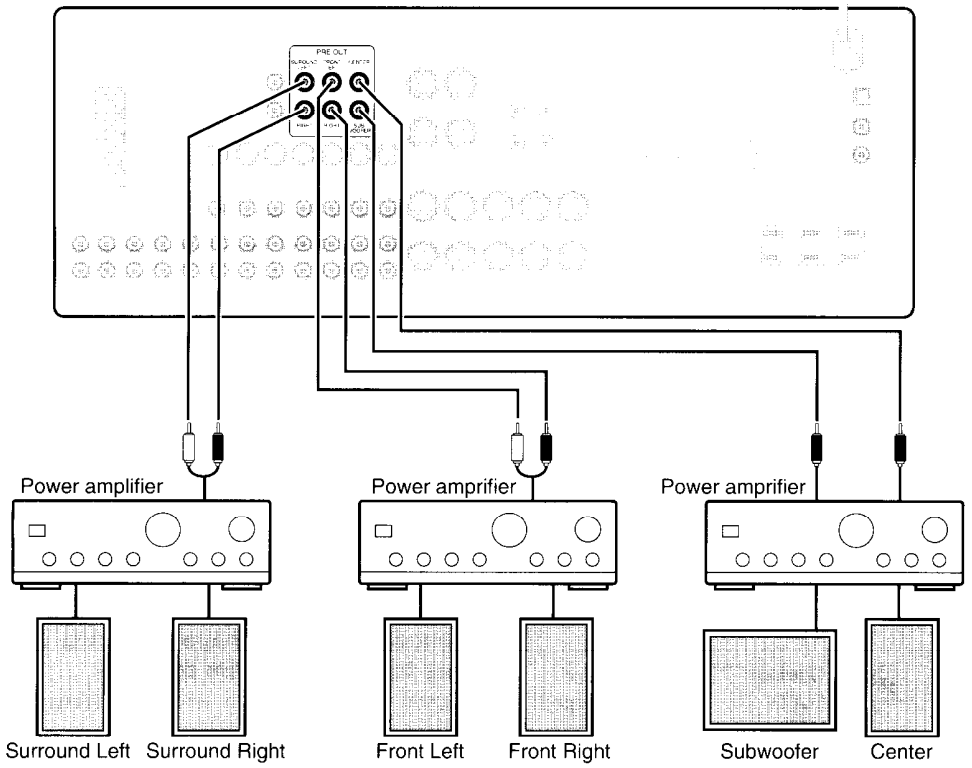
When only one pair of speakers is connected, the impedance of the speakers used must be between 6 and 16Ω .

Center speaker and subwoofer



Connecting optional amplifiers

The TX-DS838 is equipped with a set of PRE OUT connectors, which allow you to connect external power amplifiers. With such amplifiers, you can play sources at even higher volume levels than with the TX-DS838 alone.
Connect the TX-DS838's PRE OUT connectors to the power amp input connectors, then connect the speakers to the power amp.

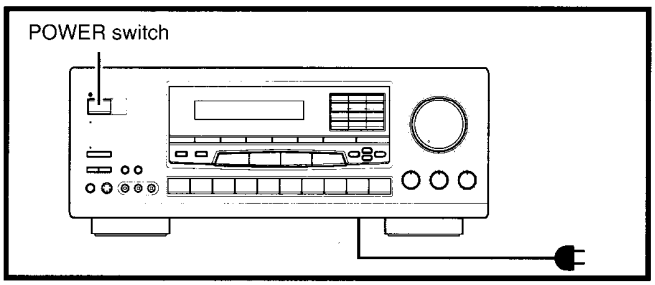


NOTE:

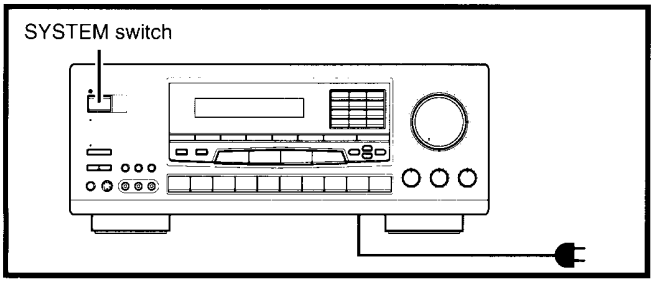
- Power amplifiers or integrated amplifiers can be used in this application.

Connecting the power

Before plugging in the unit, confirm that all connections have been made properly.
Before turning on the power, be sure that the MASTER VOLUME control knob is fully turned counterclockwise.
Turning on this unit's power may cause a momentary power surge, which might interfere with other electrical equipment, such as computers. If so, use a wall outlet on a different circuit.

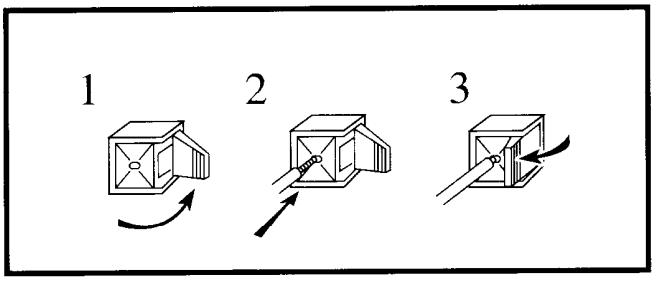


U.S., Canadian and worldwide models:
Plugging the TX-DS838's power cord into an AC outlet puts the unit in stand-by status (the STAND-BY/RECEIVED indicator is lit). Pressing the POWER switch turns on the unit and lights up the POWER indicator. If this switch is pressed again, the unit returns to the stand-by status.
The POWER button on the remote control is used in the same way as the POWER switch on the TX-DS838.



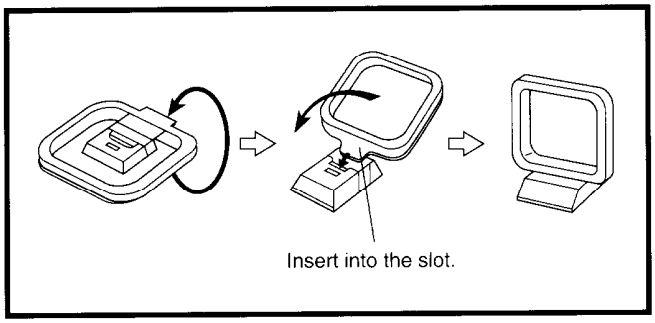
European models:
After plugging the TX-DS838's power cord into an AC outlet, press the SYSTEM switch to put the unit in power-on status (the unit can be operated and its SYSTEM indicator is lit). The remote control cannot be used to operate the TX-DS838 if the SYSTEM switch is not set to ON.
When the SYSTEM switch is set to ON, pressing the POWER button on the remote control switches the TX-DS838 between stand-by status (the STAND-BY/RECEIVED indicator is lit) and power-on status (the SYSTEM indicator is lit).
Pressing the SYSTEM switch on the TX-DS838 to set it to OFF turns off the unit. (When the SYSTEM switch is set to OFF, only a small amount of power is used.)

Connecting antennas



Antenna cables

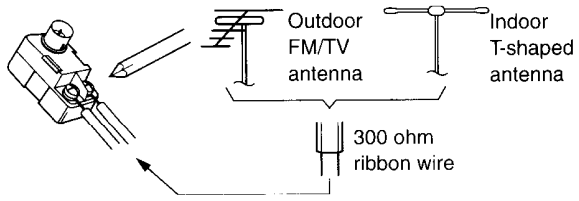
1. Press down on the lever.
2. Insert the wire.
3. Return the lever.



AM loop antenna

Assemble the loop antenna as shown in the illustration. (Refer to the next page for details on connecting the AM loop antenna.)

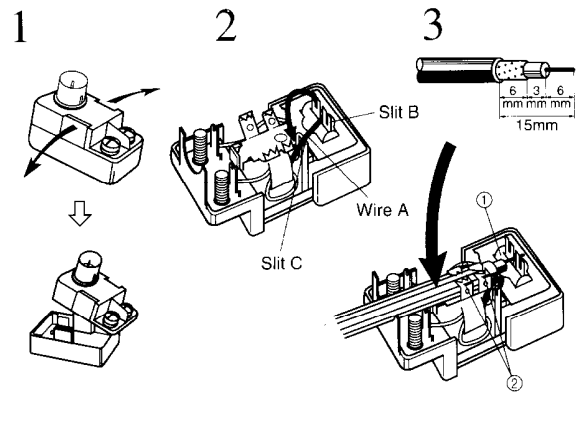
The 75/300 ohm adaptor is only included with the worldwide model.



75/300 ohm adaptor (worldwide model only)

Connecting the T-shaped antenna or 300 ohm ribbon wire to the 75/300 ohm adaptor

Loosen the screws and wrap the wires around them. Then, tighten the screws with a screwdriver.



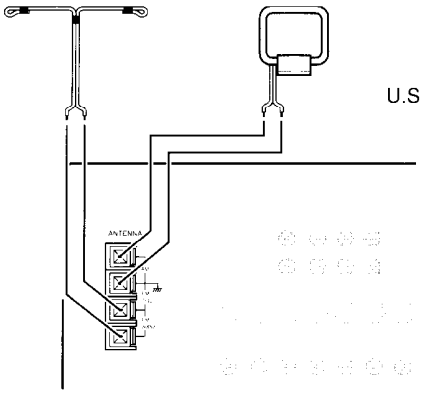
Connecting the coaxial cable to the 75/300 ohm adaptor

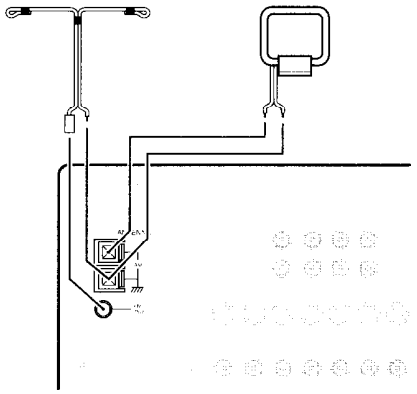
1. With your fingernail or a small screwdriver, pull the stoppers outwards and remove the cover.
2. Remove the transformer wire A from slit B and insert it into slit C.
3. Prepare the coaxial cable as shown in the illustration. Connect the coaxial cable to the 75/300 ohm antenna adaptor.
   ① Insert the end of the cable.
   ② Use pliers to pinch it and keep it in place.
4. Re-install the cover.

Connecting antennas

T-shaped FM antenna and AM loop antenna

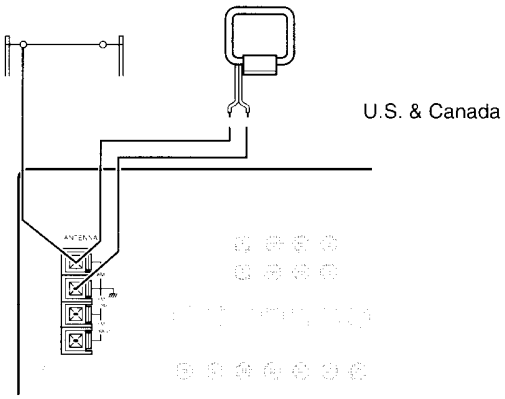
The T-shaped FM antenna is for indoor use only. Extend the antenna and move it until the clearest signal is received. Use tacks or similar objects to fix it in the T-shaped arrangement giving the least amount of distortion.
The AM loop antenna is also for indoor use only. Position it where the clearest sound is received. Put it as far as possible away from this unit, the TV, speaker cables and power cords.
If clear signals cannot be received using only the enclosed T-shaped FM antenna or AM loop antenna, connect an outdoor FM or outdoor AM antenna as needed.

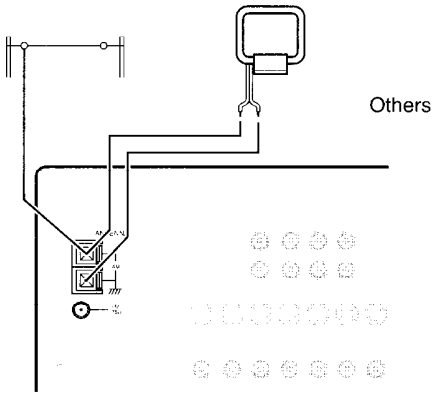




Outdoor AM antenna

The outdoor AM antenna will be more effective if it is stretched horizontally above a window or outside. (Do not disconnect the AM loop antenna.)

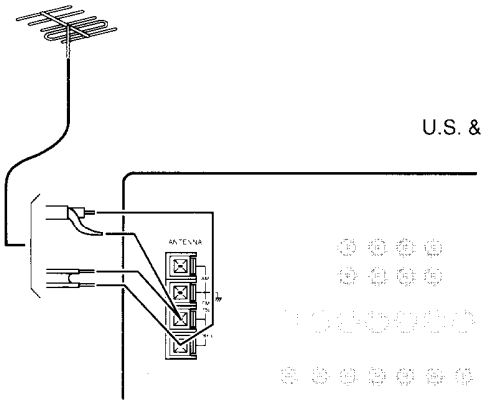


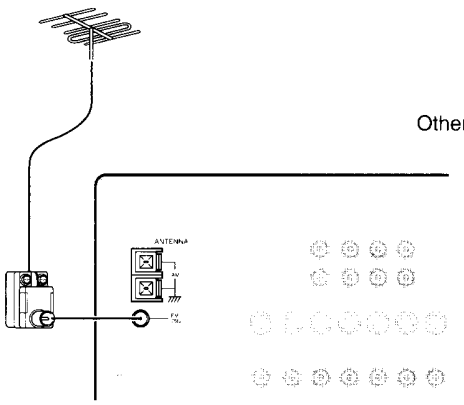


Outdoor FM antenna

Be sure that the outdoor FM antenna is positioned as follows:

- Keep the antenna away from noise sources, such as neon signs and busy roads.
- Do not position it near power lines, etc. This is very dangerous.





Setting up the Multi-Room Remote System

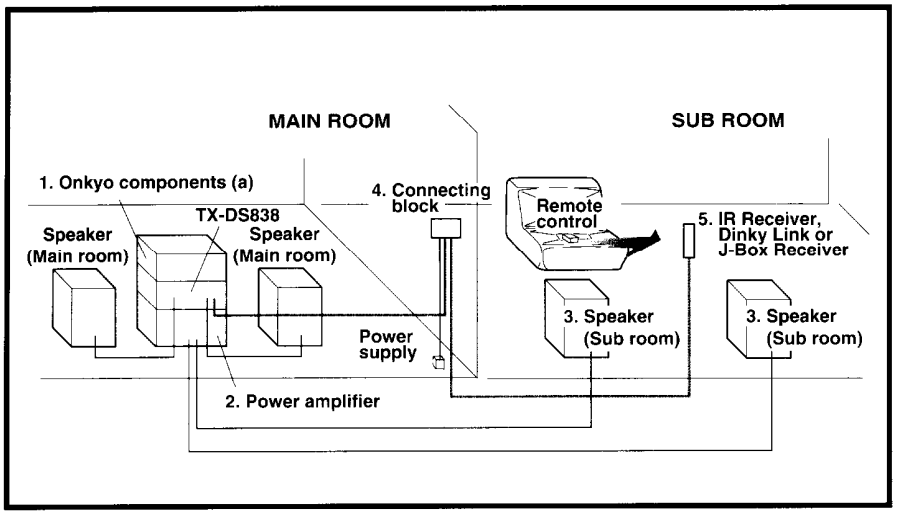
Using the optional Multi-Room System equipment as well as a power amplifier and connecting components as shown in the following diagrams makes it possible to control them from the room that they are in (main room) and from another room (sub-room).

NOTE:

- Do not plug in the power cord until all connections have been made.

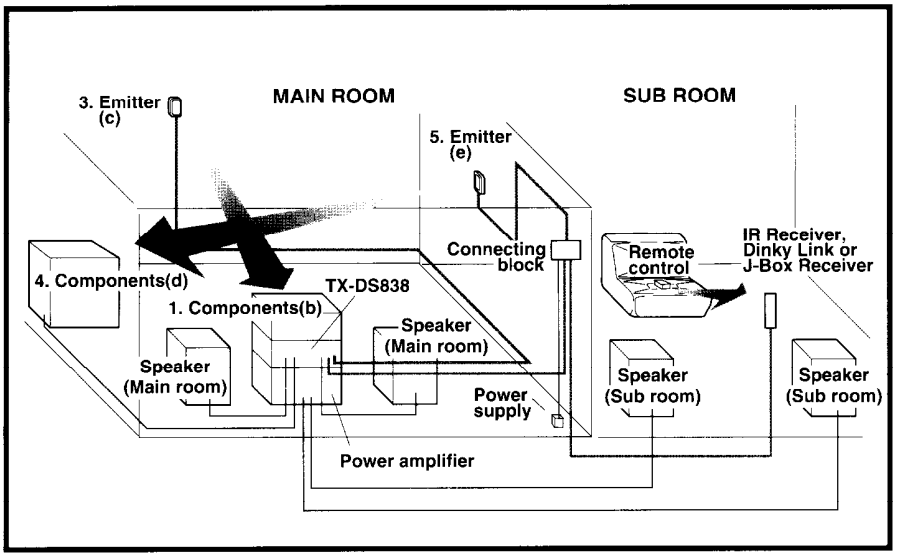
Make connections ① through ⑥ as shown in the connection diagram at the bottom of the page. Be sure the components are correctly connected.

■ Connecting components equipped with Onkyo RI connectors



1. Set up the Onkyo RI components (a).
2. Connect the TX-DS838 to the power amplifier. (①)
3. Connect the sub-room speaker cables to the speaker terminals on the power amplifier. (②)
4. Install Remote Sensor HR-10 in the sub-room, then connect it to the TX-DS838. (③)

■ Connecting components not equipped with Onkyo RI connectors

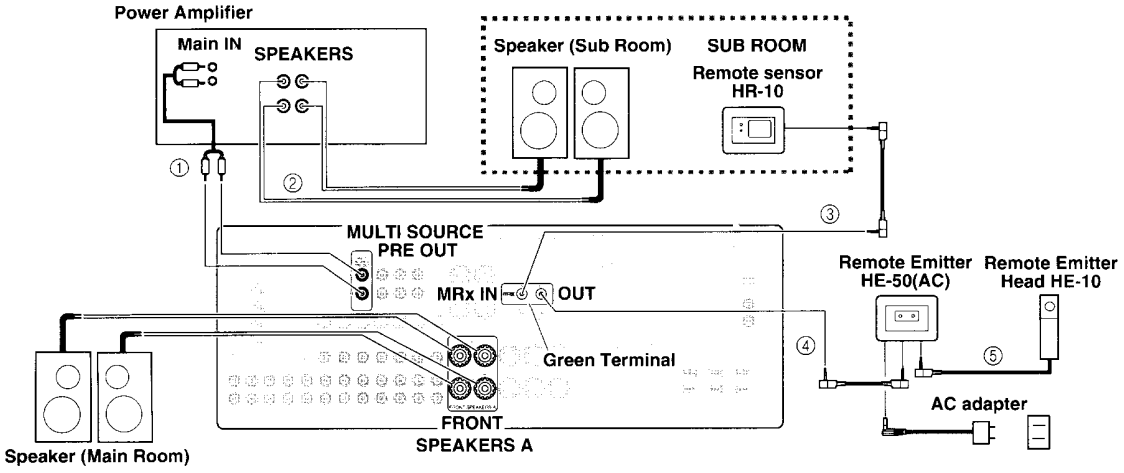


1. Connect the components (b) to the TX-DS838.
2. Make the connections described above in steps 2 through 4.
3. Install Remote Emitter HE-50 (AC so that its sensor is directed toward these components, then connect it to the TX-DS838. (④)
   (Connect the AC adaptor to the Remote Emitter.)

To operate components positioned out of range of the emitter installed as described above:

4. Connect these components (c) to the TX-DS838.
5. Install Remote Emitter Head HE-10 so that its sensor is directed toward these components, then connect it to the HE-50 (AC). (⑤)

Connection diagram



Setting up the Multi-Room Remote System

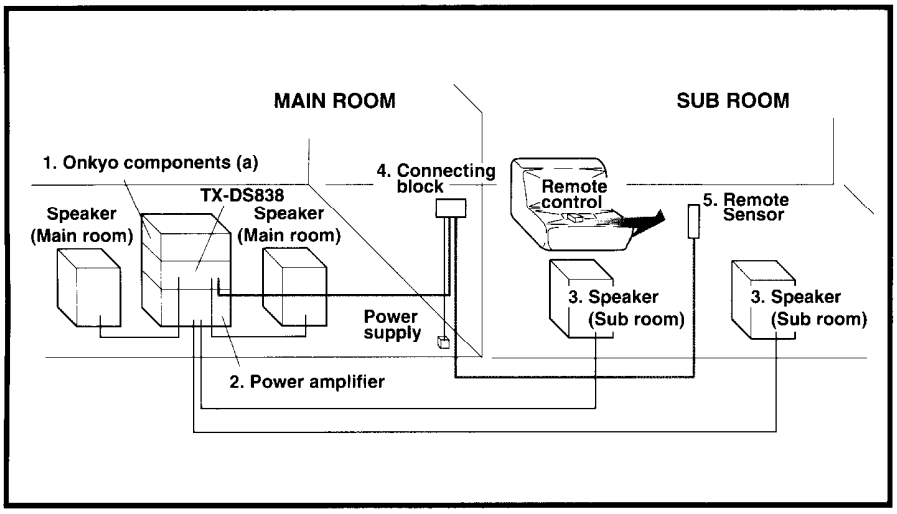
Xantech Multi-Room System (U.S. and Canadian models):

NOTE:

- Do not plug in the power cord until all connections have been made.

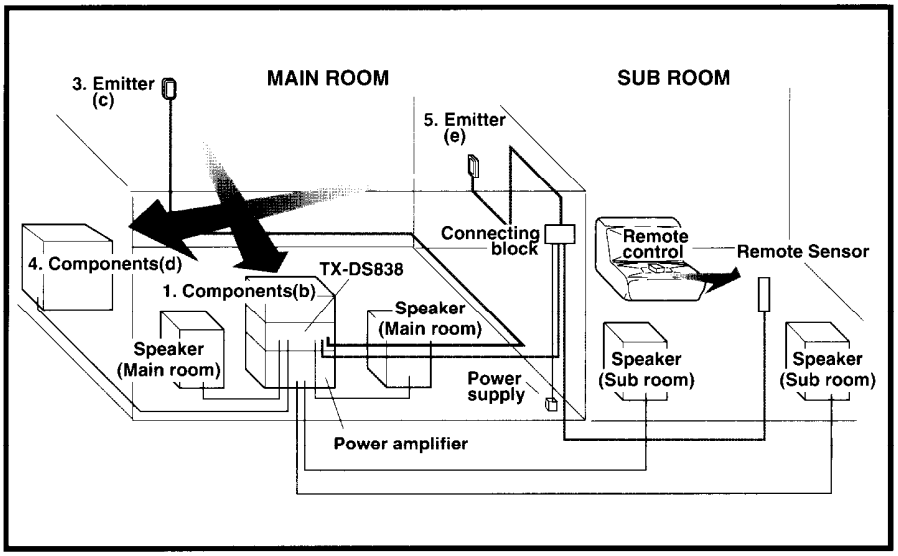
Make connections ① through ⑥ as shown in the connection diagram at the bottom of the page. Be sure the components are correctly connected.

■ Connecting components equipped with Onkyo RI connectors



1. Set up the Onkyo RI components (a).
2. Connect the TX-DS838 to the power amplifier. (①)
3. Connect the sub-room speaker cables to the speaker terminals on the power amplifier. (②)
4. Install Connecting Block in the main room, then connect it to the TX-DS838. (③)
5. Install Xantech's J-Box Receiver or Dinky Link in the sub-room, then connect it to the Connecting Block in the main room. (④)

■ Connecting components not equipped with Onkyo RI connectors

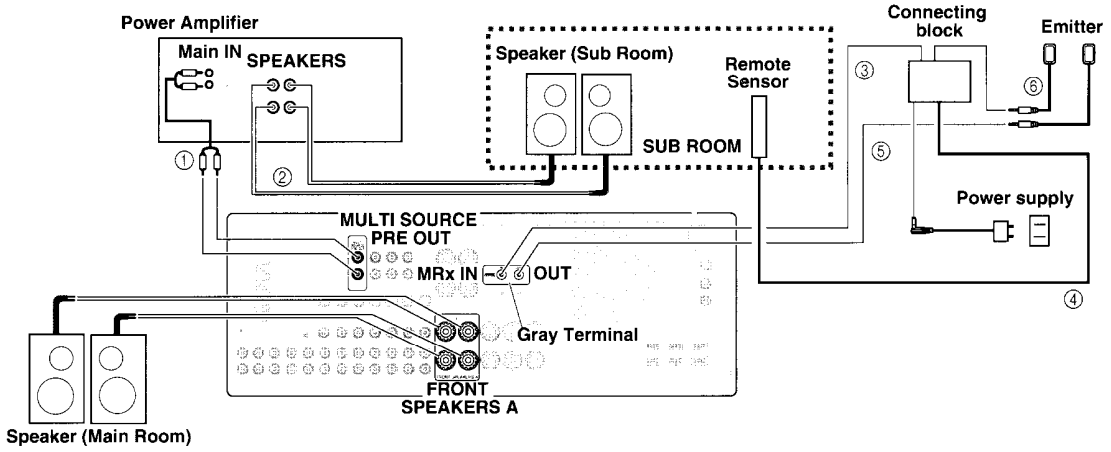


1. Connect the components (b) to the TX-DS838.
2. Make the connections described above in steps 2 through 5.
3. Install Emitter (c) so that its sensor is directed toward the components, then connect it to the TX-DS838. (⑤)

To operate components positioned out of range of the emitter installed as described above:

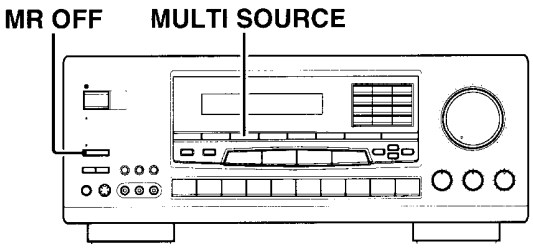
4. Connect these components (d) to the TX-DS838.
5. Install another Emitter (e) so that its sensor is directed toward these components, then connect it to the Connecting Block. (⑥)

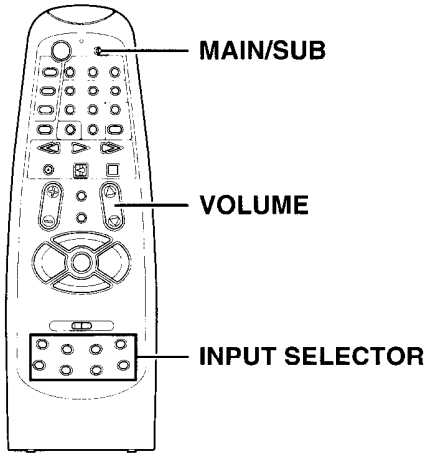
Connection diagram

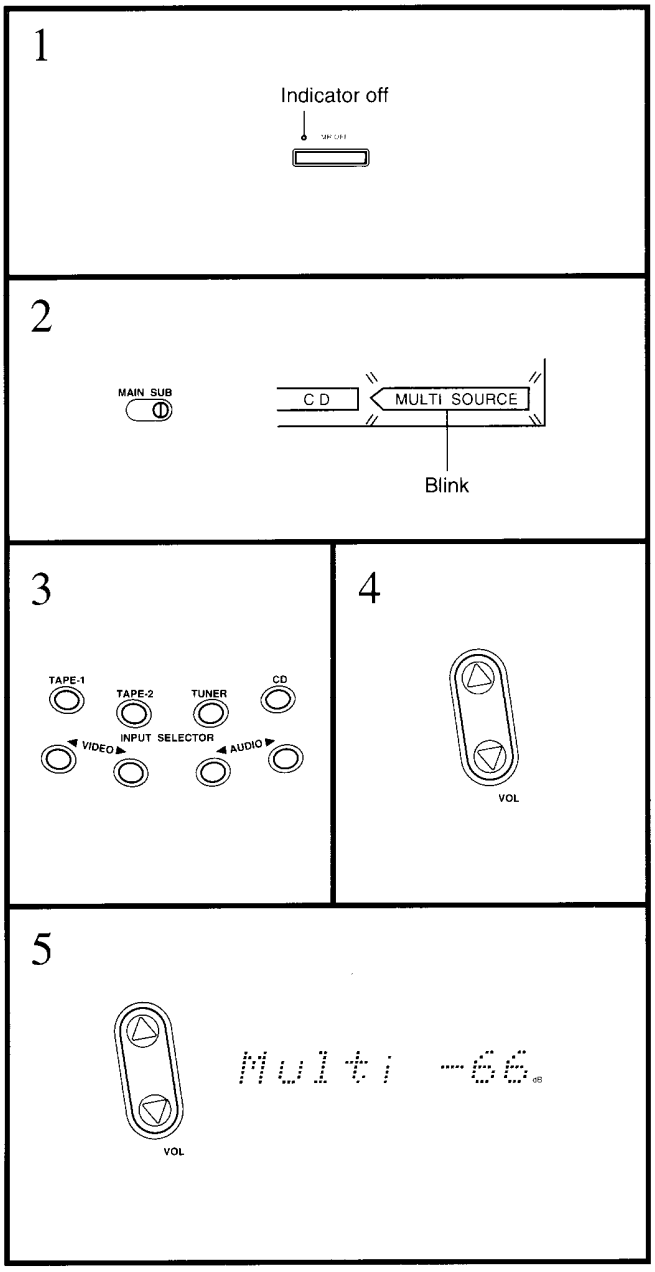


Multi-Room Remote Control

Refer to pages 20 and 21 for connection details.







Listening from another room

In the main room:

1. **Press the MR OFF button on the TX-DS838 to make the indicator go off. (If the MR OFF indicator is lit, the multi-room system cannot be used.)**
2. **Set the MAIN/SUB selector switch on the remote control to SUB.**
3. **Press the appropriate INPUT SELECTOR button on the remote control to select your desired source and start operating it.**
   The MULTI SOURCE indicator in the display lights up.
   To select a different sub-room source from the main room, press the MULTI SOURCE button on the main unit, then while the MULTI SOURCE indicator flashes, use the input selector buttons to select your desired source. (If an input selector button is pressed while the indicator is off, the main room source will change.)
4. **Press the VOLUME ▲ or ▼ button to set the MULTI SOURCE level to its minimum (between –78 and –76 dB).**
   The MULTI SOURCE level appears on the display.

In the sub-room, direct the remote control toward the Remote Sensor (Onkyo multi-room system) and:

5. **Use the VOLUME ▲ or ▼ button to adjust the volume to the desired level.**

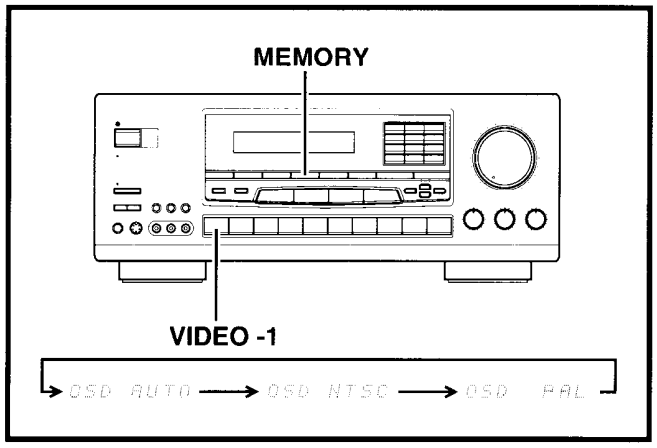
NOTE:

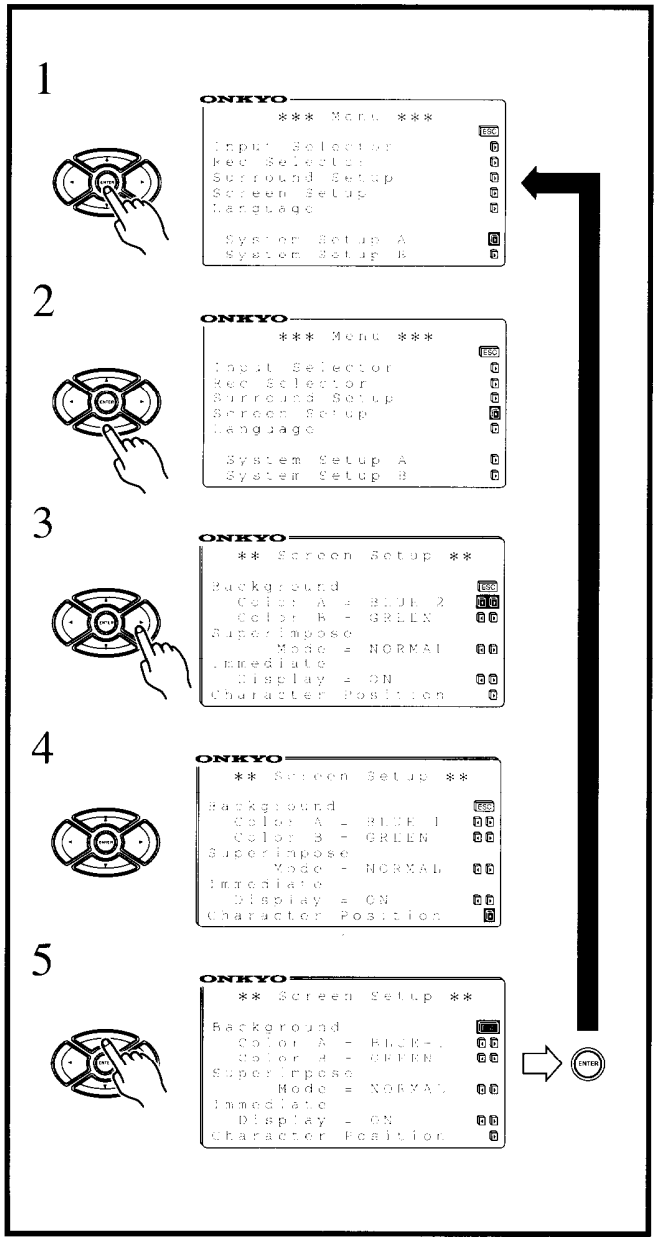
- If the MAIN/SUB selector switch on the remote control is set to MAIN and the MASTER VOLUME control knob is adjusted, the volume level of the speakers in the main room will change, not the speakers in the sub-room.

If the remote control is used from the sub-room, but the components cannot be controlled, check the following:

- Use the controls on the TX-DS838 in the main room to check whether it is working properly. Then, use the remote control to check whether the component is working properly. If it is not, refer to page 5.
- When operating a component not bearing Onkyo's RI mark, check that the emitter is directed toward that component.
- Check that the components are correctly connected.
- Check that the MR OFF indicator on the TX-DS838 is not lit.

Using the on-screen display function
(remote control only)





Selecting the NTSC or PAL system (Not available on the U.S. and Canadian models)

If the picture on the screen scrolls with the TV signal that is being received, change the system setting.

1. **To display the currently selected system type for three seconds, hold down the MEMORY button and press the VIDEO-1 button once.**
2. **To change the setting, keep the MEMORY button held down and continue pressing the VIDEO-1 button until the desired system appears.**

If "OSD AUTO" is selected, the unit will automatically select the system used by the connected TV/monitor or projecter.

Basic operation

Use the remote control to move the cursor (the black highlighting on a setting) and enter the desired settings.

1. **Press the ENTER button on the remote control to display the Menu screen.**
2. **Select the desired screen using the ▲ or ▼ cursor button on the remote control.**
3. **Press the ► cursor button on the remote control to display the selected screen.**
4. **Select the desired parameter using the ▲ or ▼ cursor button on the remote control and change the setting using the ◄ or ► cursor button.**
5. **After all of the desired settings have been entered, move the cursor to ESC in the screen and press the ENTER button on the remote control to return to the Menu screen.**

When a video source is playing, the video image is displayed behind the on-screen display. When nothing is being played, the on-screen display appears in front of the selected background color.

Since the on-screen display is output only to the MONITOR OUT terminal, the display is not recorded, even if an on-screen display appears on the TV/monitor while recording.

The parameters in each screen differ according to the Surround mode selected. Pressing the ◄ or ► cursor button while the cursor is positioned over certain items may display a sub-screen.

Moving the cursor to ESC and pressing the ENTER button performs the selected command or begins the chosen mode.

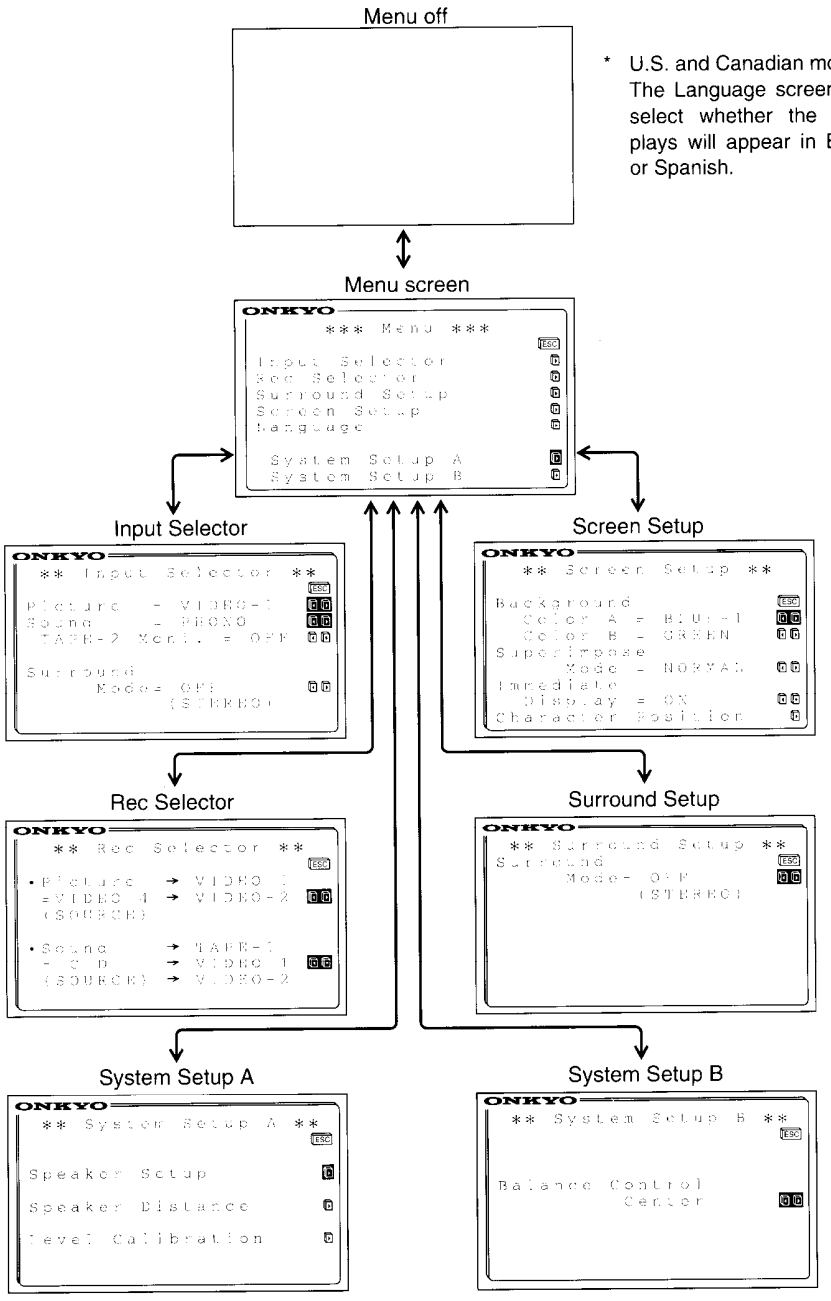
NOTE:

- Be sure to select the correct input on the TV/monitor. (For example, if the cable connected to MONITOR OUTPUT is connected to the TV/monitor's VIDEO 1 INPUT, VIDEO 1 must be selected on the TV/monitor.)
- When using an old TV that is not installed with a video input, the on-screen display can be seen by connecting a VCR.

Using the on-screen display function (remote control only)

Screens

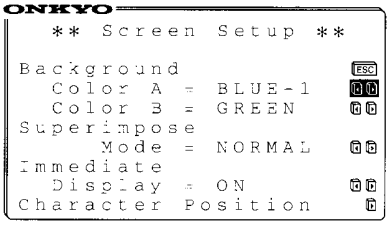
Refer to the page whose number appears within parentheses for more details about the screen.
Selecting certain settings for some parameters in the Surround Setup screen may result in other parameters either disappearing or being skipped over by the cursor.

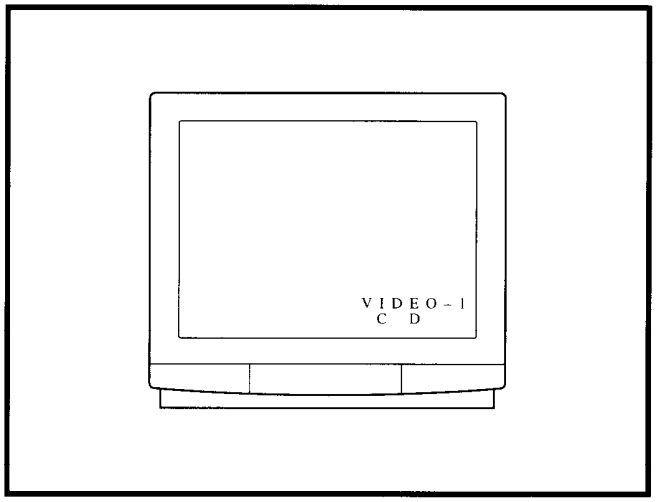


* U.S. and Canadian models only:
The Language screen allows you to select whether the on-screen displays will appear in English, French or Spanish.

Screen Setup screen

When Screen Setup is selected, the following screen appears:





Background Color

You can select a background color from among 7 colors (Blue-1, Blue-2, Green-1, Green-2, Magenta, Red-1 or Red-2). Different background colors can be selected for System Setup A and System Setup B.

Note that the above color descriptions are standard. The actual colors may differ depending on the TV/monitor's tone and brightness settings.

When there is an image input signal, the input signal will be used as the background and the background color which you have selected will not be displayed.

Superimpose Mode

It is possible to set the on-screen display so that it is easy to read when an image input signal is received. This parameter can be set to OFF, NORMAL or BLACK. Select OFF to display the background color behind the on-screen display characters or NORMAL to replace the background color with the image from the input signal. If BLACK is selected, the characters of the on-screen display appear in white in front of a black background.

Immediate Display

These characters appear on the TV/monitor screen for 3 seconds each time an operation is performed. Select ON if you wish the immediate display to be shown, or OFF if you don't wish for it to appear.

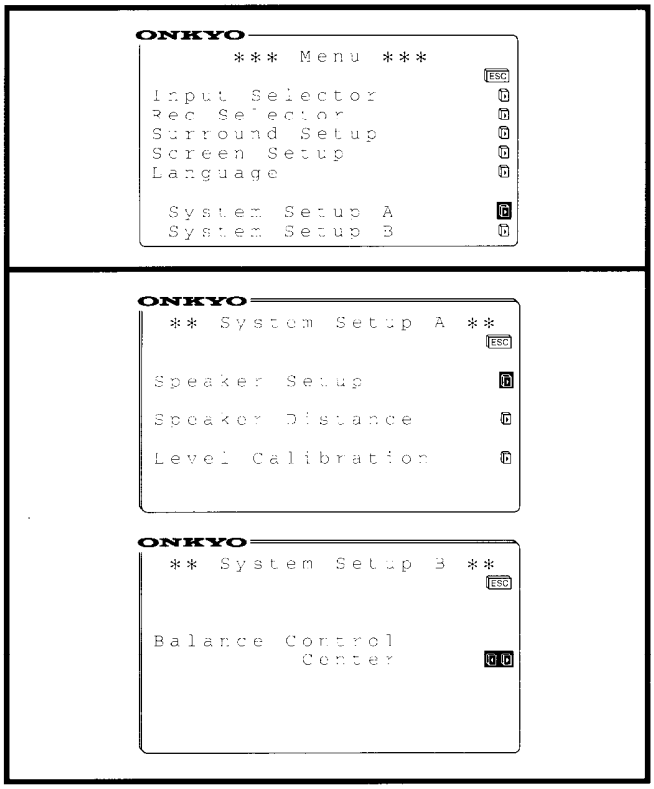
Character Position

You can move the position of the on-screen display up, down, left or right within the screen.

Setting up the speaker systems

System Setup A: Select this parameter and enter settings for the speakers connected to the FRONT SPEAKERS-A, CENTER SPEAKER and SURROUND SPEAKERS connectors on the rear panel.

System Setup B: Select this parameter and enter settings for the front speakers connected to the FRONT SPEAKERS-B connectors on the rear panel.



On-screen display operation

1. **Press the ENTER button on the remote control to display the Menu screen.**
2. **Move the cursor to select either System Setup A or System Setup B, and then press the ► cursor button on the remote control to display the appropriate System Setup screen.**

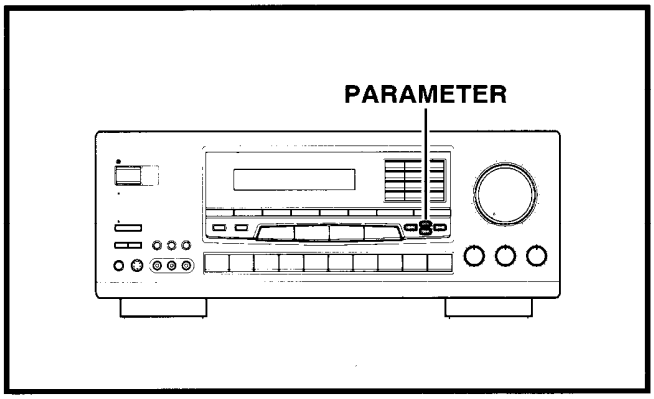
If System Setup A is selected:

3. **Press the ▲ or ▼ cursor button to select Speaker Setup, and then press the ► cursor button to display the Speaker Setup screen.**
4. **Press the ▲ or ▼ cursor button to select the parameters and press the ◄ or ► cursor button to select the appropriate settings.**
   Refer to *System Setup screen* on page 27 for more details on the parameters.
5. **Press the ▼ cursor button to select Speaker Distance, and then press the ► cursor button to display the Speaker Distance screen.**
6. **Repeat step 4. to enter the settings for the parameters in the Speaker Distance screen.**
7. **Perform the Level Calibration procedure in *Calibrating the speaker levels* on page 28.**

If System Setup B is selected:

3. **Press the ▲ or ▼ cursor button to select Balance Control, and then press the ► cursor button to display the Balance Control screen.**
4. **Press the ◄ or ► cursor button to select the desired setting.**

* Refer to the operations below when using just the main unit to carry out the on-screen display operation described above.



Main unit operation

Use the PARAMETER buttons.

1. **Press ⊙ to select System Setup.**
2. **Press ◁ or ▷ to select A or B.**

If System Setup A is selected:

3. **Press ⊙ to select Speaker Setup, and then press ◁ or ▷ to select ON.**
4. **Press ⊙ to select the parameters, and then press ◁ or ▷ to select the appropriate settings.**
   Refer to *System Setup screen* on page 27 for more details on the parameters.
5. **Press ⊙ to select Speaker Distance, and then press ◁ or ▷ to select ON.**
6. **Repeat step 4. to enter the settings for the Speaker Distance parameters.**
7. **Perform the Level Calibration procedure in *Calibrating the speaker levels* on page 28.**

If System Setup B is selected:

3. **Press ⊙ to select Balance, and then press ◁ or ▷ to select the desired setting.**

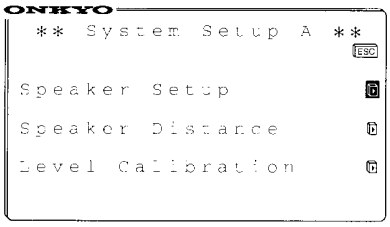
System Setup screen

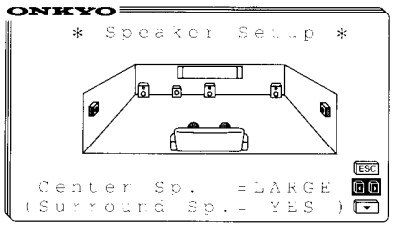
Use the System Setup screen to set the speaker parameters for all Surround modes. System Setup A and B have different parameters.

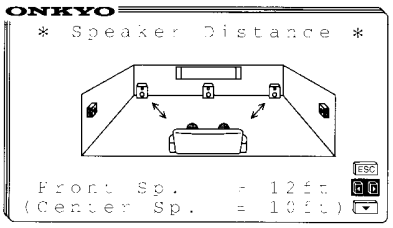
NOTE:

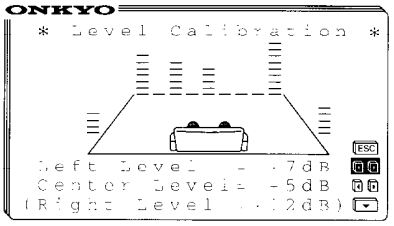
- Since all Surround modes will have the same parameter settings, it is not necessary to separately set the parameters for each Surround mode.

When System Setup A is selected, the following screen appears:









Center Speaker settings

LARGE: Select when using a large, wideband center speaker in conjunction with a subwoofer.

SMALL: Select when using a small center speaker with limited bass signal handling. With this mode, sounds below 100 Hz are split out to the subwoofer or the left and right speakers.

NONE: Select when a center and Surround speakers are not used. With this mode, the sound is downmixed and divided among the other speakers.

Speaker Setup

Use this parameter to specify which speakers are connected and their size. Select LARGE, SMALL or NONE for the center speaker and select YES or NO depending on whether or not Surround speakers and a subwoofer are connected. "Completed!" appears on the screen after the settings are entered, and then the System Setup screen appears two seconds later. If the settings are not entered correctly, after "Not Completed. Please Try Again." appears, try entering the settings again.

NOTE:

- If the Surround Speakers parameter is set to NO, only OFF or DOLBY SURROUND can be selected as the Surround mode. If no center and Surround speakers are selected, no Surround mode can be used and the setting will remain set to OFF.

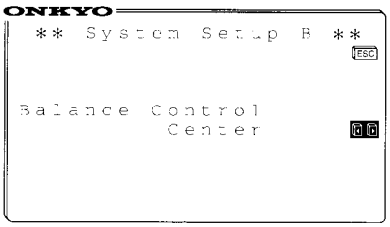
Speaker Distance

Use this parameter to specify the distance of the speakers' position from the listener. The delay time is automatically set according to these distances. First, press the ENTER button on the remote control to select whether the distances will be shown in meters (the settings will change in 0.3 m steps) or feet (the settings will change in 1 foot steps). Then, measure the distance of the left/right front, center and left/right Surround speakers from the listening position and select the correct settings.

Level Calibration

Adjust the level of each channel in order to remain faithful to the film director's intentions. This parameter is used to calibrate each channel's absolute sound level using a test signal. Refer to *Calibrating the speaker levels* on page 28 for more details.

When System Setup B is selected, the following screen appears:

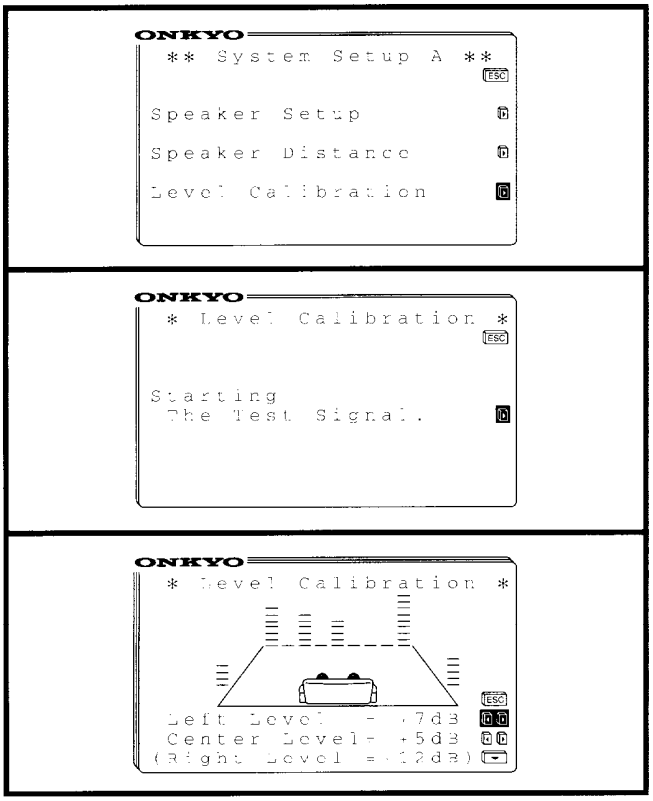


The balance is normally set to Center.

NOTE:

If System Setup B is selected, the Surround mode is automatically set to OFF.

Calibrating the speaker levels:



On-screen display operation

1. **Move the cursor to Level Calibration in the System Setup A screen, and then press the ► cursor button on the remote control to display the Level Calibration screen.**
2. **Move the cursor to Starting the Test Signal, and then press the ► cursor button.**
   The test signal sounds from the left front speaker.
3. **Press the ▼ cursor button on the remote control to select a speaker.**
   With each press of the button, the selected speaker changes one at a time in the following sequence:

   → Left Level → Center Level → Right Level → R-Sur. Level →
   SW Level ← L-Sur. Level ←

4. **Press the ◄ or ► cursor button to adjust the level.**
   The adjustments can be made in 1 dB steps between –12 dB and +12 dB for all speakers.
   While making the adjustments, the test signal will automatically turn itself off if an adjustment is not made within 2 minutes.
5. **Repeat steps 3. and 4. to adjust all speaker levels until the test signal level sounds the same from all speakers.**
6. **To turn off the test signal, move the cursor over ESC and press the ENTER button.**

* Refer to the operations below when using just the remote control or the main unit to carry out the on-screen display operation described above.

Remote control operation

1. **Press SET/TEST to sound the test signal.**
2. **Press 7/CH.SEL to select a speaker.**
3. **Press 8/LEVEL ▲ or 0 ▼ to adjust the level.**
4. **Repeat steps 2. and 3. to adjust all speaker levels until the test signal level sounds the same from all speakers.**

Main unit operation

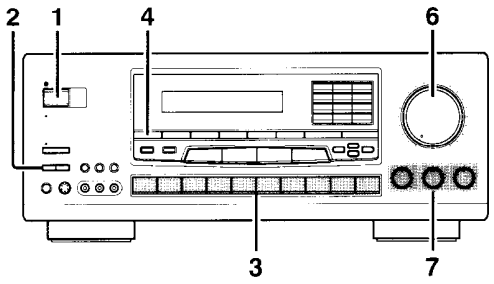
1. **Press ◁▷ to select Test Signal.**
2. **Press ◁ or ▷ to select ON.**
   The test signal sounds from the left front speaker.
3. **Press ◁▷ to select a speaker.**
   With each press of the button, the selected speaker changes one at a time in the following sequence:

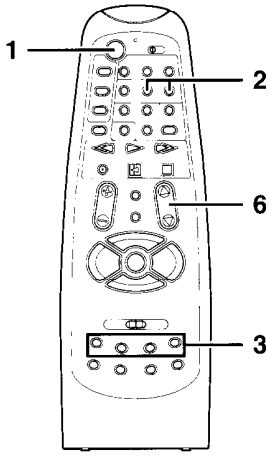
   → Left → Center → Right → R-Surround → L-Surround →
   Subwoofer ←

4. **Press ◁ or ▷ to adjust the level.**
5. **Repeat steps 3. and 4. to adjust all speaker levels until the test signal level sounds the same from all speakers.**
6. **After all parameters have been set, press ◁.**

Listening to your favorite source

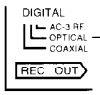
Be sure that the AUDIO MUTING indicator is not lit and that the T-2 MONITOR indicator is not lit when a source other than TAPE-2 MONITOR is being selected.
Refer to pages 42 to 45 for more details on playing the selected source with a Surround mode.





Remote control and main unit operation

1. **Press either the POWER button on the remote control or the POWER switch (SYSTEM on the European models) on the main unit to turn on the power.**
   European models only:
   If the SYSTEM switch on the main unit is set to OFF, the remote control cannot be used.
2. **Press the A or B speaker selector button to select the desired speakers.**
   The corresponding indicator (SPEAKERS A or B) lights up.
3. **Press the input selector button for the desired source.**
   The name of the selected source will appear on the display. For FM or AM reception, the band and the frequency will also appear.
   To play the selected source using a Surround mode, refer to pages 42 to 45.
4. **Press the INPUT MODE button to select the appropriate setting.**
   When the CD player, DAT deck or other component is connected to a DIGITAL INPUT connector, you can choose whether the signal from that component will be digital or analog.



The DIGITAL LINE indicator corresponding to the selected input mode lights up. If the analog signal is selected, all DIGITAL LINE indicators go off.

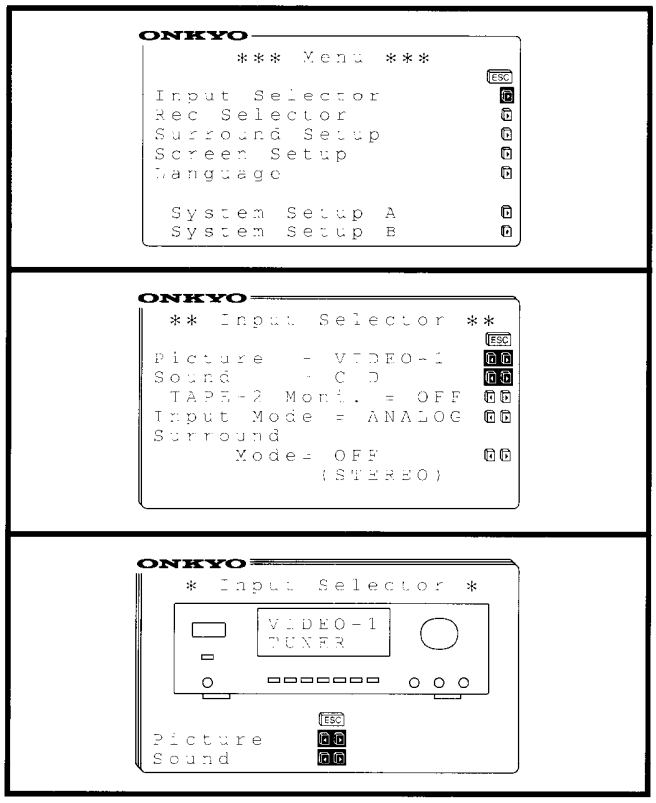
   For example, if the CD player is also connected to the OPTICAL connector and CD is chosen as the source, press the INPUT MODE button to select whether OPTICAL, COAXIAL or ANALOG will be given priority. Once the input mode is set, the entered setting will automatically be selected each time CD is chosen as the source.
   To select a different component as the digital source, first set the previously set digital source to ANALOG, then start from the beginning and change the digital source.
5. **Follow the operating instructions for the selected unit to start playback.**
   Refer to *Tuning in a radio station* on page 31 for more details on using the tuner.
6. **Adjust the volume to the appropriate level using the MASTER VOLUME control knob.**
7. **Adjust the tone controls.**

BASS control knob
Adjusts the bass response.

MIDBASS control knob
Adjusts the vocals and midbass response.

TREBLE control knob
Adjusts the treble response.

NOTE:
The TREBLE, MIDBASS and BASS control knobs only affect the left/right front and center speakers.



On-screen display operation

First, select the desired speakers by pressing a speaker button on either the remote control or the main unit.

1. **Press the ENTER button on the remote control to display the Menu screen.**
2. **Move the cursor to Input Selector and press the ► cursor button on the remote control to display the Input Selector screen.**
3. **Press the ◄ or ► cursor button to display the Input Selector screen.**
4. **Press the ▲ or ▼ cursor button to select Picture and/or Sound, and then press the ◄ or ► cursor button to select the desired input source.**

   Picture

   Specifies the input source of the picture.

   Sound

   Specifies the input source of the sound.

   When you press the ◄ or ► cursor button while cursors are on both Picture and Sound, you can change both parameters at the same time. However, if any setting other than VIDEO-1 through –4 is selected for the Sound parameter, the Picture setting remains unchanged and only the Sound changes.

   TAPE-2 Moni.

   Switches on and off the sound from the component connected to the TAPE-2 connectors. Keep this parameter set to OFF when TAPE-2 is not being used.

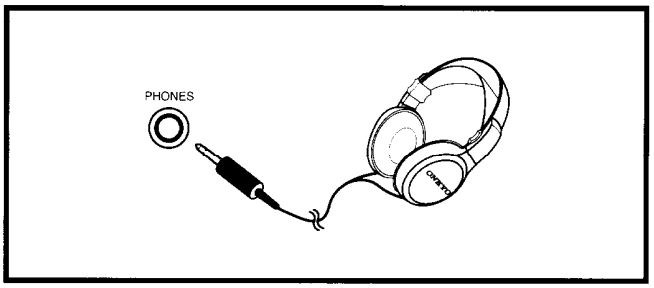
   Input Mode

   Specifies whether the signal from the component connected to one of the DIGITAL INPUT connectors will be digital or analog. (Refer to page 29 for more details.)

   Surround Mode

   Specifies the Surround mode.
5. **Move the cursor over ESC and press the ENTER button.**
6. **Follow the operating instructions for the selected unit to start playback.**

   If TUNER is selected as the Sound input source, refer to *Tuning in a radio station* on page 31 for more details.



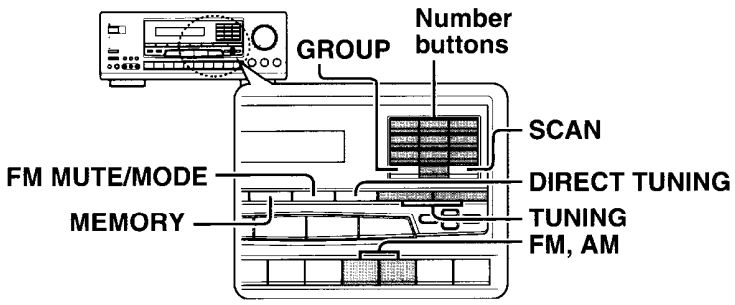
Headphones

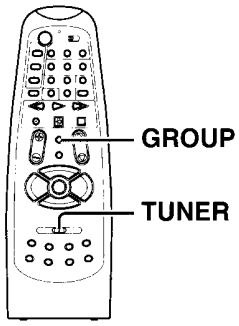
Headphones with a standard stereo jack can be inserted into the PHONES jack.

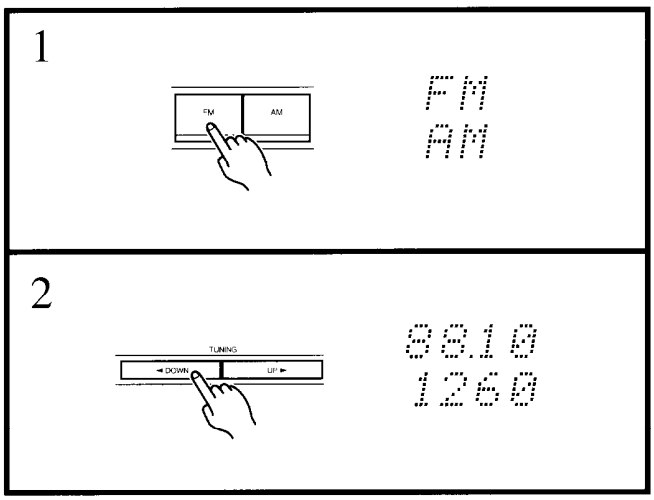
When the headphones plug is inserted into the PHONES jack, speakers A and B are turned off and the Surround mode automatically switches to STEREO.

Tuning in a radio station

Make sure that the T-2 MONITOR and AUDIO MUTING indicators are not lit.





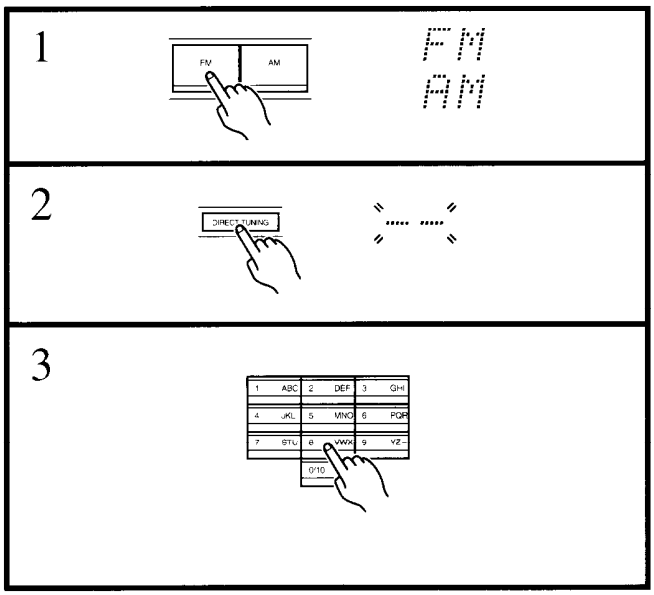


Manual tuning

1. **Press either the FM or AM button on the main unit.**
2. **Change the frequency using the ◄ DOWN or UP ► TUNING button.**
   Press the ◄ DOWN TUNING button to decrease the frequency and press the ► UP TUNING button to increase the frequency.
   The TUNED indicator in the display lights up when the station is properly tuned in.

In FM, each press of a TUNING button changes the frequency in 50 kHz steps; in AM, the frequency changes in steps of 9 or 10 kHz, depending on the area where the unit is used.

If a button is continuously held down for more than 0.5 seconds while tuning an FM station, the frequencies are scanned and tuning automatically stops when a broadcast is received.



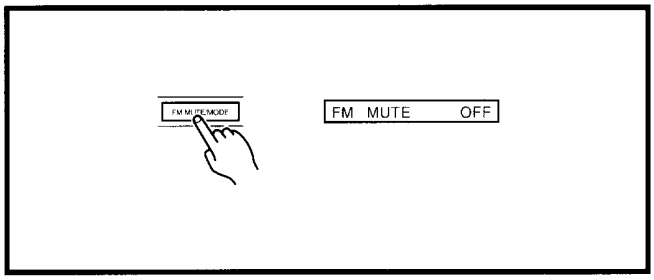
Direct tuning

1. **Press either the FM or AM button on the main unit.**
2. **Press the DIRECT TUNING button.**
   "-- --" flashes in the display for 16 seconds.
3. **While "-- --" flashes, enter the frequency using the number buttons.**
   For example, to enter "88.10 MHz", press the 8, 8, 1, then 0/10 number buttons.
   The TUNED indicator in the display lights up when the station is properly tuned in.

If you enter a frequency where there is no station, this unit will automatically tune to the first station immediately below the entered frequency.

If you enter a frequency that is out of range, this unit will return to the previous frequency.

U.S./Canadian and worldwide models:
Since the AM frequency changes in 10 kHz steps, any number entered in the 1 kHz digit position automatically changes to 0.



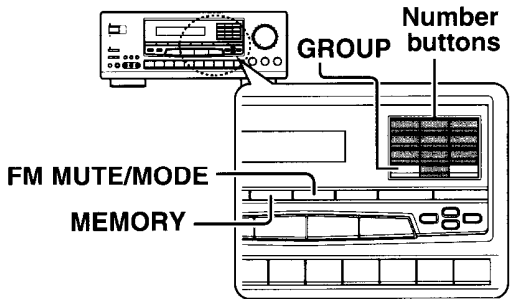
Tuning in an FM stereo radio station

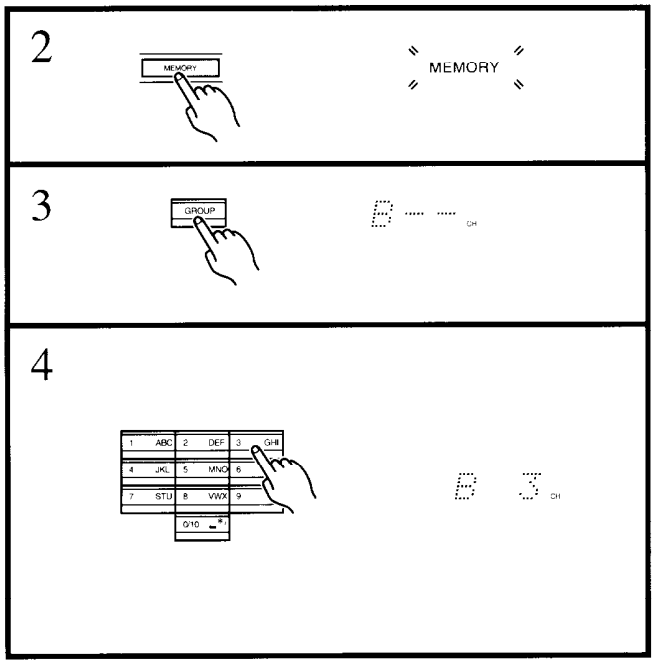
If you tune in a stereo FM station, the STEREO indicator lights up if the signal is sufficiently strong. If the signal is weak, it may be impossible to tune in the station.

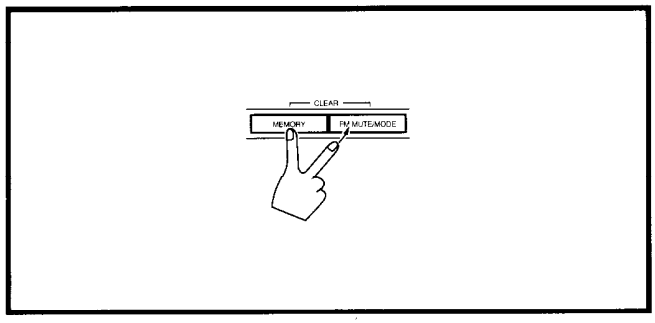
1. **Press the FM MUTE/MODE button on the main unit.**
   The FM MUTE OFF indicator lights up. This changes the broadcast to mono, so interstation noise can be heard.
2. **Select the station that you want to listen to.**

Using preset radio stations

A total of 40 FM or AM stations can be stored in the memory, ten in each group (A, B, C and D).







Setting a preset station

1. **Select the radio station frequency that you want to store in the memory.**
   (Refer to *Tuning in a radio station* on page 31.)
2. **Press the MEMORY button on the main unit.**
   The MEMORY indicator in the display lights up for 8 seconds.
3. **While the MEMORY indicator is lit, continue pressing the GROUP button until the desired group is selected.**
   With each press of the button, the group name that is shown on the display changes one at a time in the following sequence: A → B → C → D →A...
4. **Enter the desired preset number using the number buttons.**
   Press the 0/10 number button when choosing preset number 10.

NOTE:

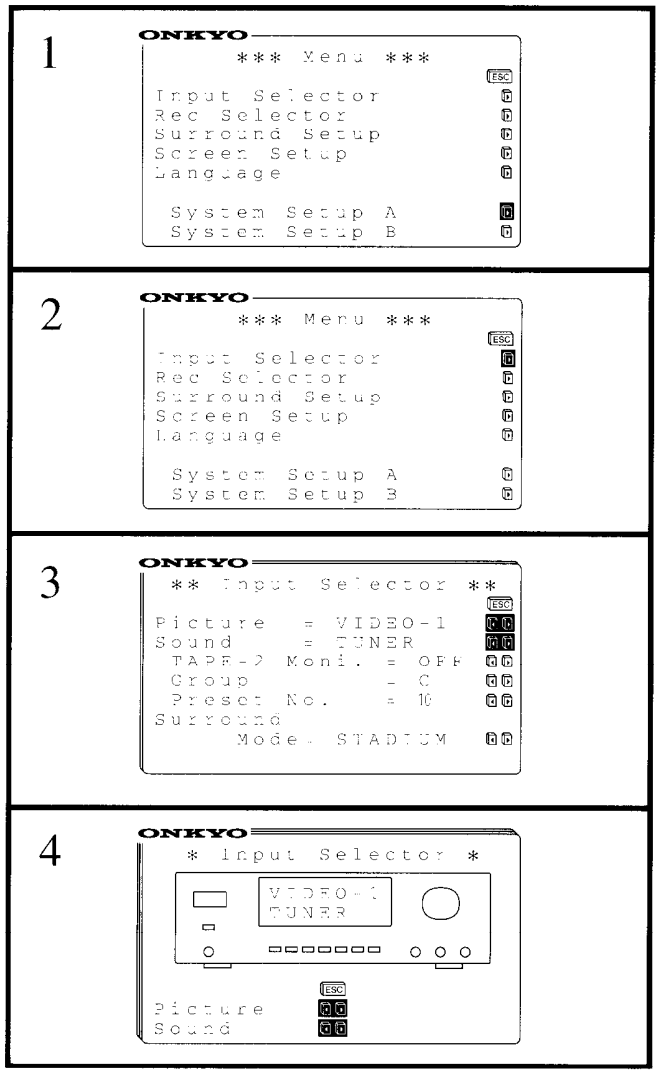
European models only:
If the selected FM station broadcasts RDS signals with a PS (Program service name), the name of the station is displayed instead of the frequency. If there is no PS, the frequency is displayed. (Refer to pages 34 and 35 for more details about RDS reception.)

Cancelling a preset station

1. **Select the station that you want to cancel.**
   (Refer to *Selecting a preset station* on page 33.)
2. **Hold down the MEMORY button on the main unit and press the FM MUTE/MODE button.**
   "--" appears in the display.

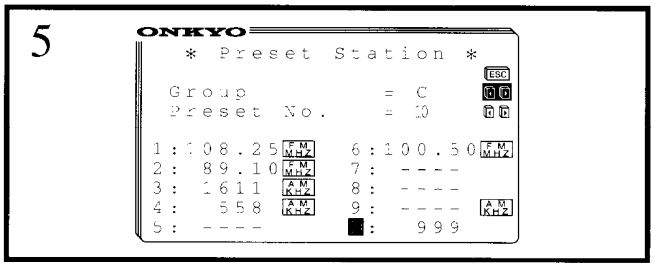
Selecting a preset station

NOTE:
If no radio stations are stored in the memory, a group and preset number cannot be selected. Refer to *Setting a preset station* on page 32 for more details.



On-screen display operation

1. **Press the ENTER button on the remote control to display the Menu screen.**
2. **Move the cursor to Input Selector and press the ► cursor button on the remote control to display the Input Selector screen.**
3. **If TUNER is not selected as the Sound source, press the ▲ or ▼ cursor button to move the cursor to Sound, and then press the ◄ or ► cursor button to display the Input Selector screen.**
4. **Select TUNER as the Sound source, then move the cursor over ESC and press the ENTER button.**
5. **Change the Group and Preset No. parameters to select the desired station.**
   The preset frequencies in the selected group are displayed.



* Refer to the operations below when using just the remote control or the main unit to carry out the on-screen display operation described above.

Remote control operation

First, select the tuner as the source by pressing the TUNER input selector button on the remote control.

1. **Press RECALL / GROUP until the desired group is displayed.**
2. **Enter the preset number using the number buttons.**

Main unit operation

First, select the tuner as the source by pressing the AM or FM input selector button on the main unit.

1. **Press GROUP until the desired group is displayed.**
2. **Enter the desired preset number using the number buttons or press SCAN to scan through the preset stations.**

   If SCAN is pressed, each station stored in the selected group will be played for 5 seconds. When the desired station is found, press SCAN again to stop scanning.

Receiving RDS broadcasts
(Not available in the U.S. and other areas)

RDS reception is only available in areas where RDS broadcasts are available.

What is RDS?

Many FM stations now transmit RDS signals which give additional information. RDS provides you with various services so that, for example, you can choose a station broadcasting your favorite category of music or other information. The information shown below is available on this unit.

NOTE:

- In some cases, the characters that appear in the TX-DS838's display may not be exactly the same as the ones broadcast by the radio station. If unusual characters appear in the display, characters are being received that cannot be correctly displayed by the TX-DS838. This does not indicate a malfunction of the unit.

PS: Program Service Name
When an RDS station broadcasting PS information is selected, the station's name is displayed instead of the frequency.

PTY: Program Type
When an RDS station broadcasting PTY information is selected, the station type (classification) is displayed.

TP: Traffic Program
When an RDS station broadcasting TP information is selected, traffic information is displayed.

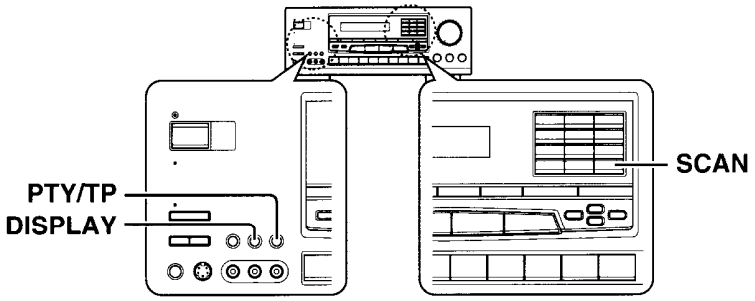
RT: Radio Text
When an RDS station broadcasting RT information is selected, information received from the station is displayed.

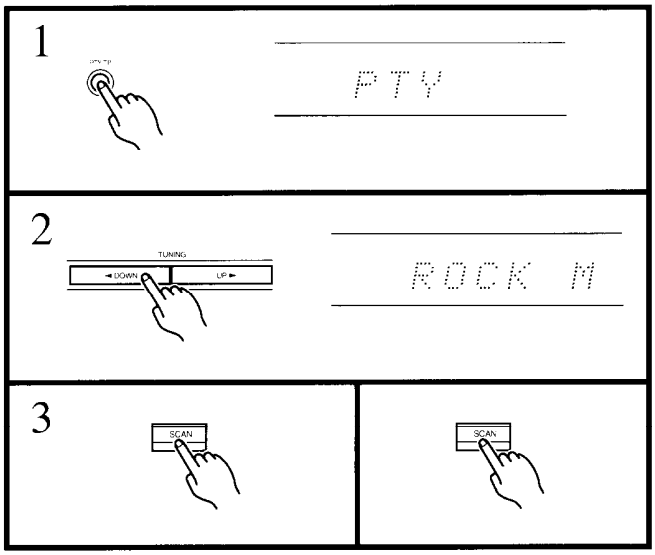
PTY Classifications

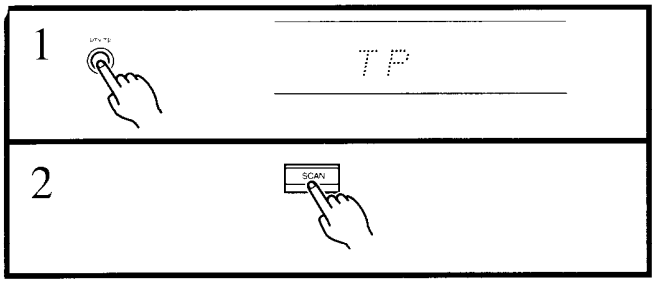
1. **NEWS** (news reports)
2. **AFFAIRS** (current affairs)
3. **INFO** (general information)
4. **SPORT** (sports news)
5. **EDUCATE** (educational programs)
6. **DRAMA** (radio series)
7. **CULTURE** (cultural programs)
8. **SCIENCE** (science and technology programs)
9. **VARIED** (various talk programs, e.g. quizzes, panel games and comedies)
10. **POP M** (pop music)
11. **ROCK M** (rock music)
12. **M O R M** (middle-of-the-road or easy listening music)
13. **LIGHT M** (light classical music)
14. **CLASSICS** (serious classics, e.g. orchestral, symphonic and chamber music)
15. **OTHER M** (other types of music, e.g. Jazz, Rhythm & Blues, Folk, Country, Reggae)

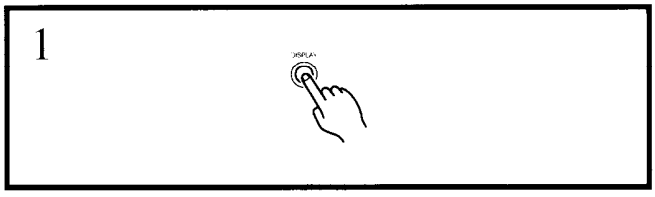
* **ALARM** (When an RDS station is making an emergency broadcast, this PTY will flash on the display.)

Receiving RDS broadcasts (Not available in the U.S. and other areas)









Searching for a station of your favorite program type (PTY scan)

If the selected station is not broadcasting RDS signals, this function cannot be used.

1. **Press the PTY/TP button on the main unit until "PTY" appears on the display.**
   If "Not RDS" appears on the display, the selected station is not an RDS station.
2. **Use the ◄ DOWN or UP ► TUNING button to select the program type (PTY), for example "ROCK M".**
   Refer to the PTY descriptions on the previous page.
3. **Press the SCAN button to start searching for stations of the desired program type.**
   When a station of the desired program type is received, scanning stops for approximately 5 seconds, and then continues again.
4. **When the desired station is found, press the SCAN button to stop scanning.**

Searching for traffic information (TP scan)

If the selected station is not broadcasting RDS signals, this function cannot be used.

1. **Press the PTY/TP button until "TP" appears on the display.**
2. **Press the SCAN button to start searching for other TP stations.**
   When a station broadcasting traffic information is found, scanning stops. If "Not find" appears on the display, a TP station cannot be found.

Displaying Radio Text (RT)

If the selected station is not broadcasting RDS signals, this function cannot be used.

With each press of the DISPLAY button on the main unit , the displayed RDS information changes as shown below:

Frequency → Entered characters or Program Service Name → Radio Text → Frequency

If the current station you are listening to is not an RDS station, only the station frequency and the entered characters appear. (Refer to *Entering characters* on page 36 for more details about entering characters.) If no characters have been entered, only the frequency is displayed.

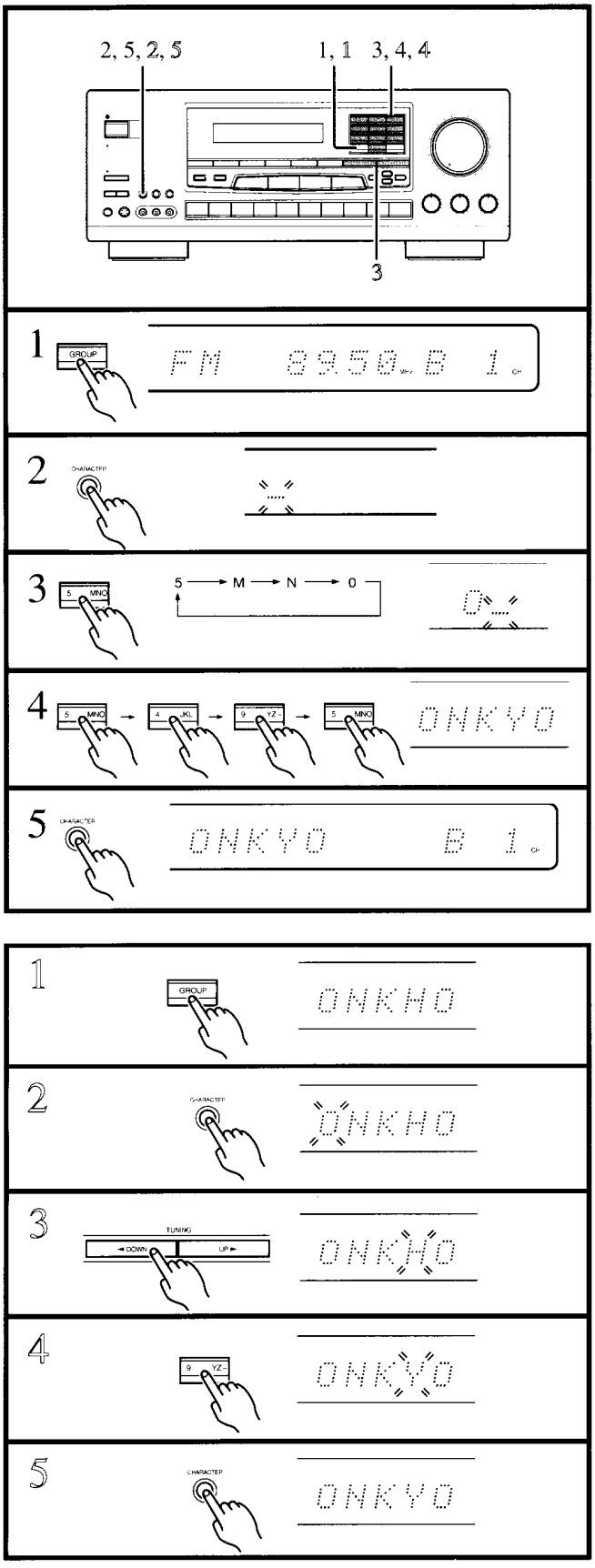
When RT signals are received, about 15 seconds are necessary until the Radio Text appears on the display.

If "Wait" appears on the display, more time is required to receive the RT information. When the information is received, the characters will scroll across the display. If "No text" appears on the display for 3 seconds, RT information is not available.

Entering characters

While receiving a preset FM or AM station, a maximum of 8 characters consisting of letters, numbers and some symbols can be stored, for example to represent the station name.

Europe and Australia only:
If you attempt to enter characters for an FM station broadcasting RDS information, "RDS...PS" is displayed and characters cannot be entered.



Characters which can be entered:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 1 2 3 4 5 6 7 8 9 0 - ␣ * /

Note: ␣ indicates a space.

Entering characters

As an example, assume an FM station with a frequency of 89.50 MHz has been stored in preset number 1CH of group B and will be given the name "ONKYO".

1. **Select the desired station.**
   (Refer to *Selecting a preset station* on page 33.)
2. **Press the CHARACTER button on the front panel.**
   The frequency in the display goes off and the cursor (_) flashes.
3. **Continue pressing the 5MNO button until "O" is displayed.**
   With each press of the button, the character that appears in the display changes one at a time in the following sequence:
   5 → M → N → O → 5...
   If a button is not pressed within one second, the cursor automatically moves to the next position.
   To delete a character, press the DIRECT TUNING button. After the selected character is deleted, all characters to the right of the deleted character move one space to the left.
4. **Continue pressing number buttons to enter the desired characters.**
   To enter N, press the 5MNO button.
   To enter K, press the 4JKL button.
   To enter Y, press the 9YZ- button.
5. **Press the CHARACTER button to store the entered characters.**
   If a button is not pressed within 16 seconds, the operation will end automatically.

Changing an entered character

1. **Select the desired station.**
   (Refer to *Selecting a preset station* on page 33.)
2. **Press the CHARACTER button.**
   The first character and the cursor flash alternately.
3. **Press the ◄ DOWN or UP ► TUNING button to move the cursor below the character that you wish to change.**
   The cursor moves to the right when the UP ► button is pressed and moves to the left when the ◄ DOWN button is pressed.
4. **Enter the desired character.**
   The previous character is replaced with a new character.
5. **Press the CHARACTER button.**

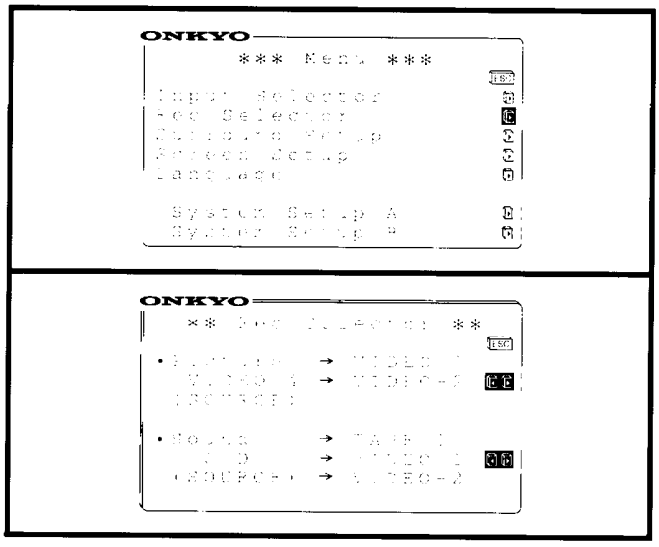
Clearing all characters

1. **Select the desired station.**
   (Refer to *Selecting a preset station* on page 33.)
2. **Press the CHARACTER button.**
3. **Hold down the MEMORY button and press the FM MUTE/MODE button.**
   All characters entered for the selected station are cleared.

Recording a source

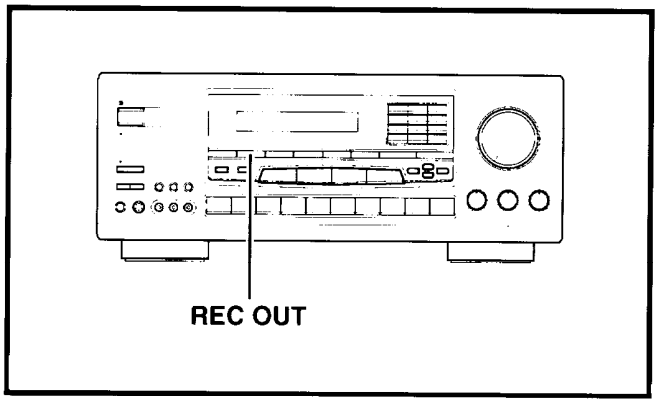
The TX-DS838 can be used to record either the source that is currently being listened to/watched or a different source. Check that the components are connected to the TX-DS838 as shown in *Connecting audio equipment* and *Connecting video equipment* on pages 13 to 14. If the Multi-Room System equipment is connected, be sure the MR OFF indicator is lit while recording.

Listening to/watching the source while recording it:



On-screen display operation

1. **Press the ENTER button on the remote control to display the Menu screen.**
2. **Move the cursor to Rec Selector and press the ► cursor button on the remote control to display the Rec Selector screen.**
3. **Move the cursor to Picture and/or Sound and press the ◄ or ► cursor button on the remote control to select the component with "(SOURCE)" displayed below it on the left side of the screen. The components that can record it will appear on the right side.**
   The component indicated as "(SOURCE)" is the currently selected input source. If a different component is selected in the Input Selector screen or by pressing an input selector button, "(SOURCE)" will appear below the name of the newly selected component.
   In the screen shown at the left, the currently selected video source is VIDEO-4 VCR and it can be recorded by VIDEO-1 or -2; the currently selected sound source is the CD player and it can be recorded by TAPE-1 or VIDEO-1 or -2.
   Sound
   Indicates which sound source is available for playback and which components are available for recording onto.
   Picture
   Indicates which video source is available for playback and which components are available for recording onto.
4. **Start recording on the recording component, then start playing the selected source.**
   With the on-screen display, Picture and Sound can separately be set to different components.



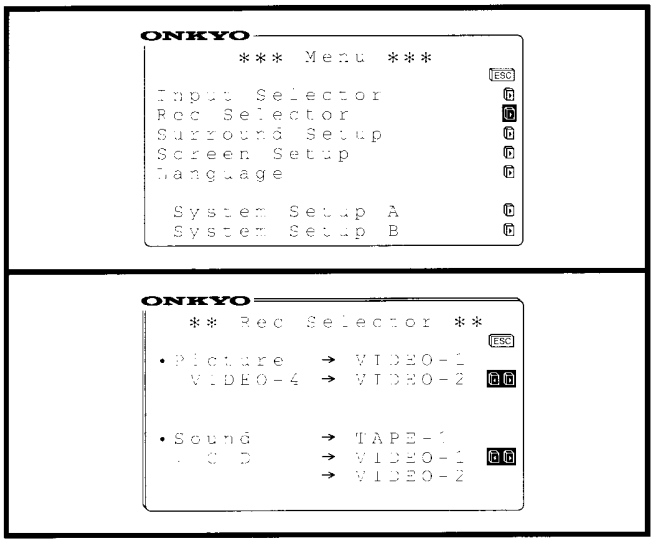
Main unit operation

1. **Press an input selector button to select the desired source.**
2. **Press** [REC OUT].
3. **While the REC OUT indicator is flashing, press** [REC OUT] **again.**
   The SOURCE indicator and the indicator for the selected source light up with red boxes around them.
4. **Start recording on the recording component, then start playing the selected source.**

NOTE:

- Do not adjust any controls on the TX-DS838 after starting the recording operation.
- Pressing an input selector button while recording will change the source being recorded.
- When the T-2 MONITOR indicator is lit, only the TAPE-2 source can be recorded. Even if a different input selector button is pressed, the T-2 MONITOR indicator will remain lit.
- Certain combinations of video input and output connections will allow sound recording, but not picture recording. An input connected to the normal video connector cannot be recorded from the S connector. Be sure to check the video connections before recording. (Refer to pages 13 and 14.)

Listening to/watching a source while recording a different one:

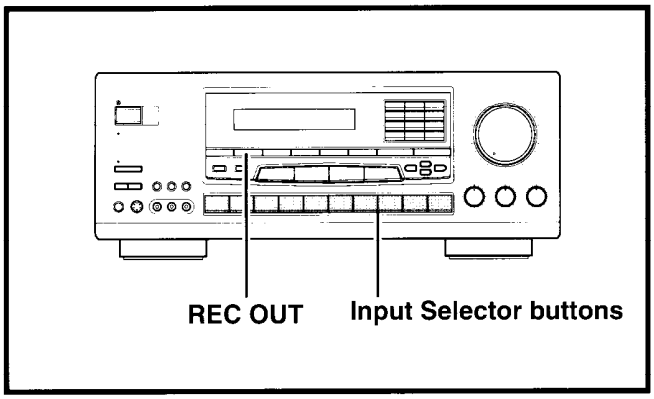


On-screen display operation

1. **Press the ENTER button on the remote control to display the Menu screen.**
2. **Move the cursor to Rec Selector and press the ► cursor button on the remote control to display the Rec Selector screen.**
3. **Move the cursor to Picture and/or Sound and press the ◄ or ► cursor button on the remote control to select the desired source on the left side of the screen. The components that can record it will appear on the right side.**
4. **Start recording on the recording component, then start playing the selected source.**
5. **To select the source that you wish to listen to or watch, move the cursor to Input Selector in the Menu screen, press the ► cursor button on the remote control to display the Input Selector screen, and then select a different source.**
   Refer to *Listening to your favorite source* on page 29 and 30 for more details on selecting the source that you wish to listen to or watch.

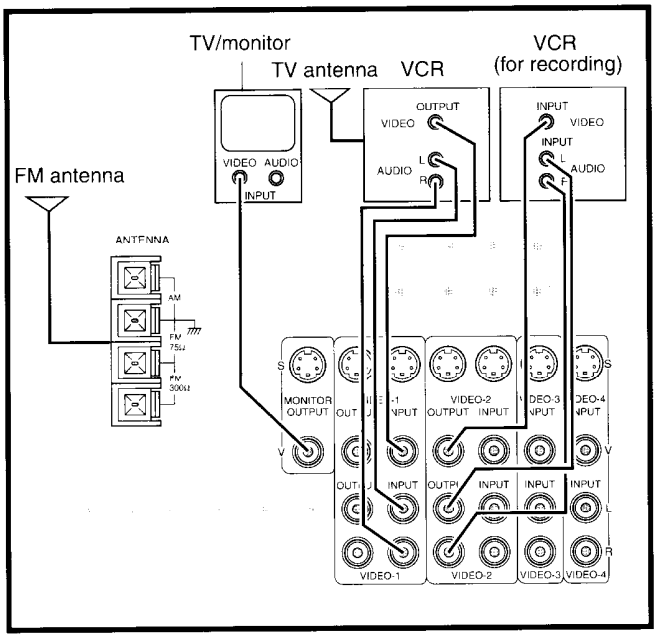
NOTE:

- When recording from an FM or AM station while listening to a different sound source, the station frequency and preset number and group are displayed for 3 seconds before the selected listening source's display appears.



Main unit operation

1. **If you are mixing a video and an audio source for VCR recording, press the input selector button for the VCR that will be used to play the video and press the REC/PAUSE button on the VCR that will be used to record.**
2. **Press REC OUT.**
3. **While the REC OUT indicator is flashing, press an input selector button to select the desired source. If you are mixing video and audio, select the audio source.**
   The indicator for the selected source lights up with a red box around it.
4. **Start recording on the recording component, then start playing the selected source(s).**
   If a VCR is being used to mix a video and an audio source, the picture from the video source and the sound from the audio source will be recorded together.
5. **To select the source that you wish to listen to or watch, press the input selector button for the desired source.**
   Refer to *Listening to your favorite source* on page 29 and 30 for more details on selecting the source that you wish to listen to or watch.



Playing back and recording a TV picture with FM/ CABLE TV sound

When two VCRs are used, a TV broadcast can be recorded with a simulcast FM broadcast.

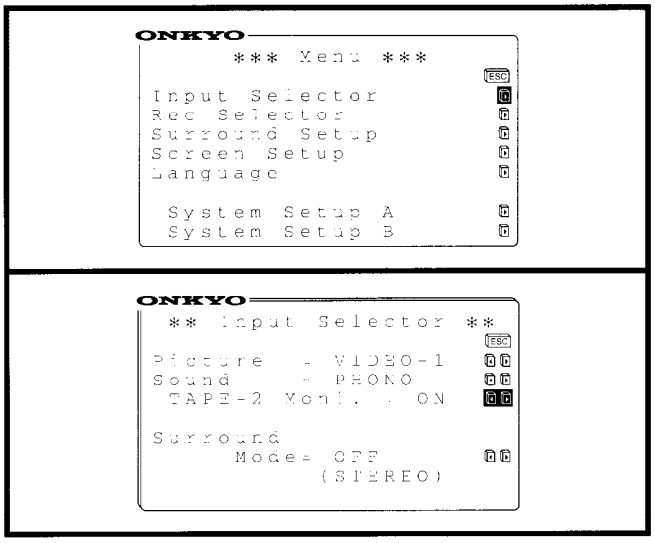
1. **Receive the TV broadcast using the VCR tuner connected to VIDEO-1 INPUT.**
2. **Press the VIDEO-1 input selector button on the TX-DC838 to select the VCR that will be used to tune in the TV broadcast.**
3. **Press the FM input selector button and tune in the FM simulcast by selecting a preset station or using the ◄ DOWN or UP ► TUNING button.**
   The picture will be sent to the TV/monitor and the FM stereo sound to the speakers.
4. **To record the TV picture with FM sound, begin recording on the VCR connected to VIDEO-2 OUTPUT.**
   The program can be monitored while recording.

Using TAPE-2 MONITOR

Unless the component connected to the TAPE-2 connectors is to be used, the T-2 MONITOR indicator in the main unit's display should not be lit; otherwise, the sound from other sources cannot be heard.
If a 3-head tape deck is connected to the TAPE-2 connectors, TAPE-2 MONITOR can be used to monitor the recording.

NOTE:
Even when TAPE-2 is not selected as the source (the T-2 MONITOR indicator is not lit), the source signal is still sent to the TAPE-2 output.

Playing back using TAPE-2 MONITOR:



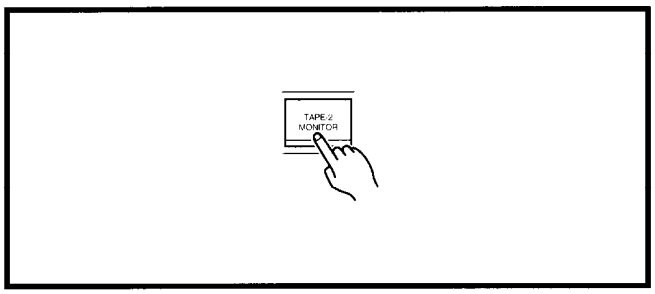
On-screen display operation

1. **Move the cursor to Input Selector in the Menu screen and press the ► cursor button on the remote control to display the Input Selector screen.**
2. **Move the cursor to TAPE-2 Moni. and press the ◄ or ► cursor button to select ON.**
3. **Follow the operating instructions for the TAPE-2 tape deck to start playback.**
   Only the sound from the TAPE-2 tape deck can be heard, even if other sources are selected for Picture or Sound.

Remote control and main unit operation

1. **Press either the TAPE-2 button on the remote control or the TAPE-2 MONITOR button on the main unit.**
   The T-2 MONITOR indicator on the main unit's display lights up.
2. **Follow the operating instructions for the TAPE-2 tape deck to start playback.**

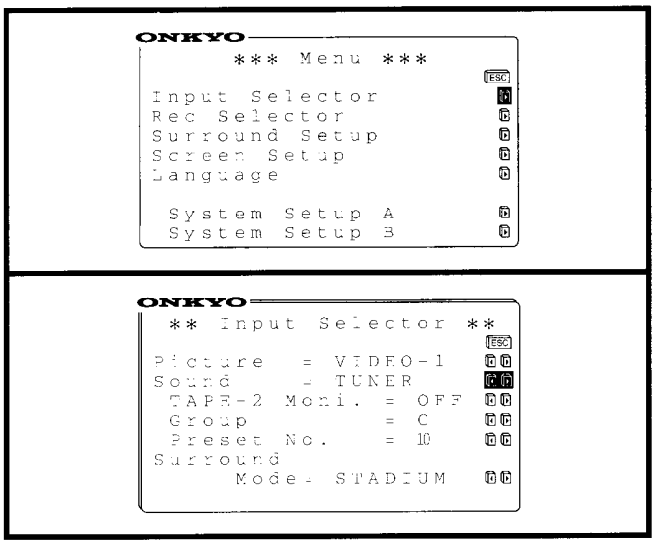
Using a graphic equalizer:



1. **Connect the graphic equalizer to the TAPE-2 connectors on the rear panel of the TX-DS838.**
2. **If a second tape deck is used, connect it to the tape deck connectors on the graphic equalizer.**
3. **Press the TAPE-2 button on the remote control or the TAPE-2 MONITOR button on the main unit, or set the TAPE-2 Moni. parameter in the Input Selector screen to ON.**
   The T-2 MONITOR indicator on the main unit's display lights up.
4. **Follow the operating instructions for the graphic equalizer.**
   To record an equalized signal, use the tape deck connected to the equalizer.

CAUTION:
- Do not use a Surround mode together with the equalizer. This will result in distortion and possible damage to Surround decoder circuitry.

Recording using TAPE-2 MONITOR:



If a tape deck is connected to the TAPE-2 connectors and a source other than TAPE-2 is selected, the sound from the selected source can be recorded.

On-screen display operation

1. **Move the cursor to Input Selector in the Menu screen and press the ► cursor button on the remote control to display the Input Selector screen.**
2. **Move the cursor to Sound and press the ◄ or ► cursor button to display the Input Selector screen.**
3. **Press the ◄ or ► cursor button to select the desired Sound source, and then move the cursor over ESC and press the ENTER button.**
   If OFF is selected for the TAPE-2 Moni. parameter in the Input Selector screen, the sound from the source can be heard. If a 3-head tape deck connected to the TAPE-2 connectors is being used for recording, select ON to hear the sound that is just recorded.
4. **Start recording using the TAPE-2 tape deck, then start playing the selected source.**
   Refer to the tape deck instruction manual for more details.

Remote control and main unit operation

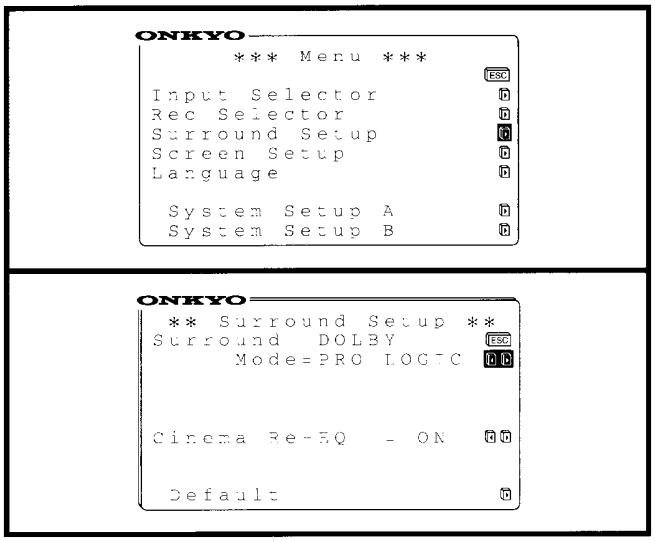
1. **Press an input selector button to select the source to be recorded.**
   If the T-2 MONITOR indicator in the display is not lit, the sound from the source can be heard. If a 3-head tape deck connected to the TAPE-2 connectors is used for recording, press either the TAPE-2 button on the remote control or the TAPE-2 MONITOR button on the main unit to light up the T-2 MONITOR indicator and hear the sound that is just recorded.
2. **Start recording using the TAPE-2 tape deck, then start playing the selected source.**
   Refer to the tape deck instruction manual for more details.

NOTE:

- Set the recording level with the controls on the tape deck that is being used for recording.

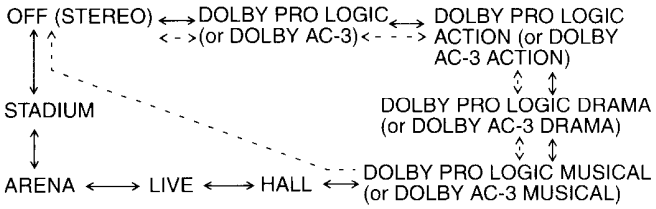
Selecting a Surround mode

Before using a Surround mode, be sure the System Setup parameters have been set. If the parameters have been set once, it is not necessary to set them again.
The DOLBY AC-3 Surround mode is used to decode media such as laser discs bearing the DOLBY DIGITAL mark and Dolby Digital (AC-3) broadcasts.
With the Dolby Surround mode, video tapes and laser discs bearing the DOLBY SURROUND trademark are decoded to reproduce the multi-channel Surround sound of a movie theater.

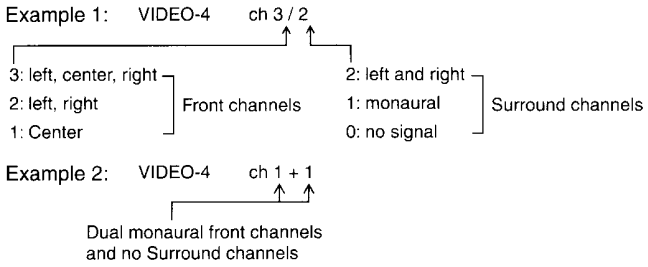


On-screen display operation

1. **Press the ENTER button on the remote control to display the Menu screen.**
2. **Move the cursor to Surround Setup and press the ► cursor button on the remote control to display the Surround Setup screen.**
3. **Press the ◄ or ► cursor button on the remote control to select the desired Surround mode.**
   With each press of a button, the mode changes one at a time in the following sequence (The broken lines show the sequence when a Dolby Digital (AC-3) source is played.):



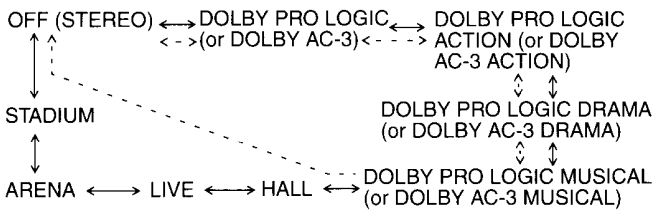
   If DOLBY PRO LOGIC is selected when a DOLBY DIGITAL (AC-3) source is played back, the Surround mode automatically changes to DOLBY AC-3 and the AC-3 indicator lights up.
   In addition, "ch" followed by a number such as "3/2", as shown at the left, appear in the main unit's multi-function display to indicate which of the three front channels and two Surround channels are available for sound output.



4. **Press the ▲ or ▼ cursor button to select a parameter, and then press the ◄ or ► cursor button to either select a setting or display the screen for the selected parameter. When a screen is displayed, press the ◄ or ► cursor button to select a setting.**
   Each mode has a number of parameters which can be used to adjust the sound. (Refer to pages 44 and 45 for more details.)

Remote control operation

1. **Press SUR.MODE ▲ or +10 ▼ to select the desired Surround mode.**
   With each press of a button, the mode changes one at a time in the following sequence (The broken lines show the sequence when a Dolby Digital (AC-3) source is played.):



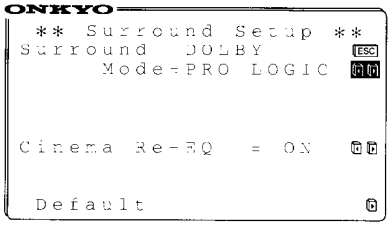
Main unit operation

1. **Press ◄ or ► to select the HALL, LIVE, ARENA or STADIUM Surround mode.**
   or
   press DOLBY SURROUND to select DOLBY PRO LOGIC (or DOLBY AC-3) or its ACTION, DRAMA or MUSICAL mode.
   Press OFF to turn off the Surround mode and return to stereo.
2. **Press ▼ or ▲ to select a parameter.**
   Refer to the diagram on page 46 for the order in which the parameters will appear.
   The parameter name appears on the display for 5 seconds. If it goes off, press the button again to display it.
3. **Press ◄ or ► to select a setting.**
4. **Repeat steps 2. and 3. to adjust the parameters.**

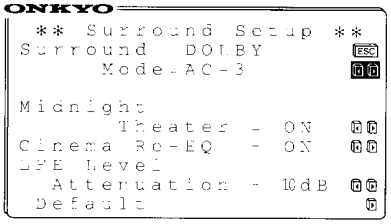
Selecting a Surround mode

Various parameters are available in the Surround mode screens shown below.
When not all parameters can be shown in one screen, ▼ appears in the bottom right-hand corner of the screen. Press the ▼ cursor button on the remote control to move the cursor to ▼. The screen displays more parameters.
Refer to *Setting the Surround mode parameters* on pages 44 and 45 for more details on each of the Surround mode parameters.

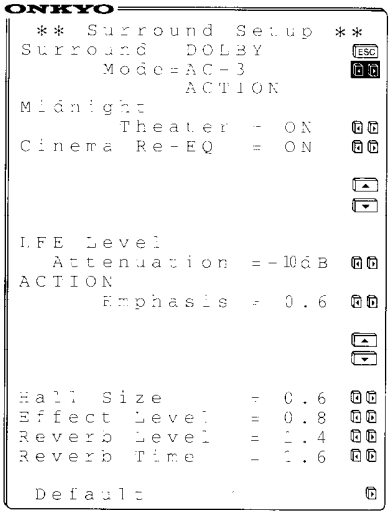
Dolby Pro Logic



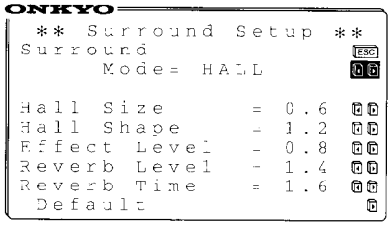
Dolby Digital (AC-3)



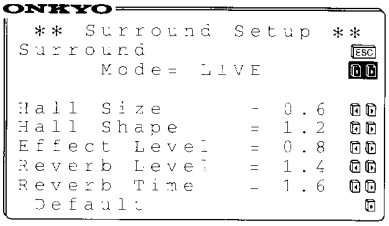
Dolby Pro Logic/Dolby Digital (AC-3)
(ACTION, DRAMA or MUSICAL)



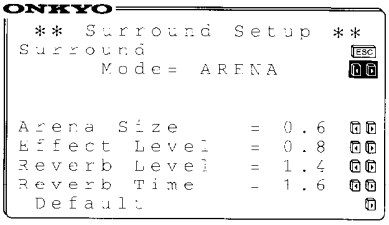
Hall



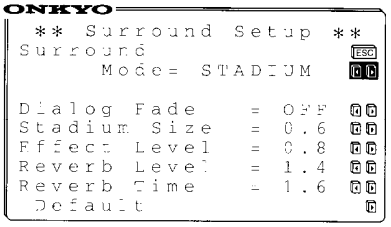
Live



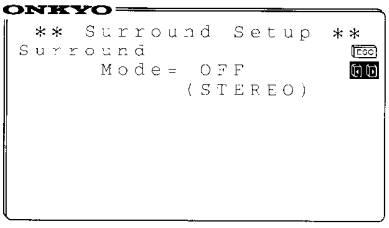
Arena



Stadium



Off



Setting the Surround mode parameters

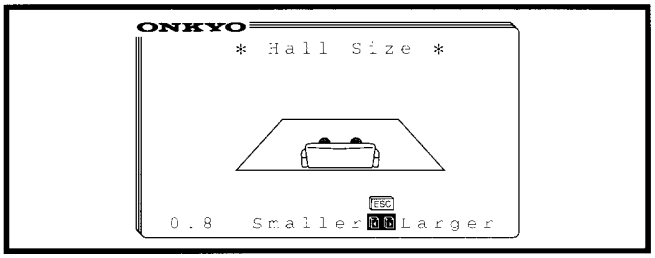
LFE (Low Frequency Effect) Level Attenuation (DOLBY DIGITAL (AC-3) Surround mode only)
If the reproduced bass is too loud, set this parameter to "–10dB" to decrease the Low Frequency Effect in the low-frequency channel by 10 dB.

Cinema Re-EQ (DOLBY DIGITAL (AC-3) or DOLBY PRO LOGIC Surround modes only)
Motion pictures are produced on the assumption that they will be shown at a large cinema. If they are shown in a small room, the high-frequency range sound will be raised, resulting in an uncomfortable sound. If your system is placed in a small room, set this parameter to "ON" to reproduce an optimal sound for the home theater system.

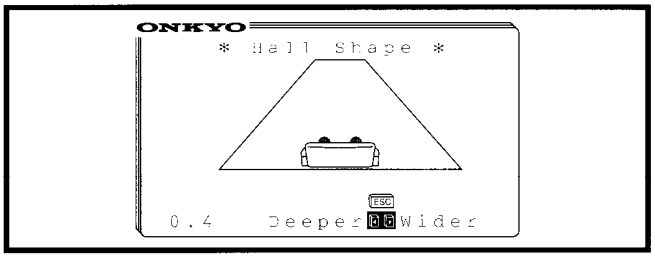
* Re-EQ is licensed from Lucasfilm Ltd. U.S. patent numbers 5,043,970; 5,189,703; 5,222,059. Foreign patents pending. Lucasfilm and Re-EQ are trademarks of Lucasfilm Ltd.

ACTION/DRAMA/MUSICAL Emphasis
These parameters bring out even more the ACTION, DRAMA or MUSICAL effects. The emphasis can be set between 0.4 and 1.6.

Hall Size/Arena Size/Stadium Size
These parameters allow you to set the size of the hall/arena/stadium. The size can be selected from seven settings between 0.4 and 1.6.

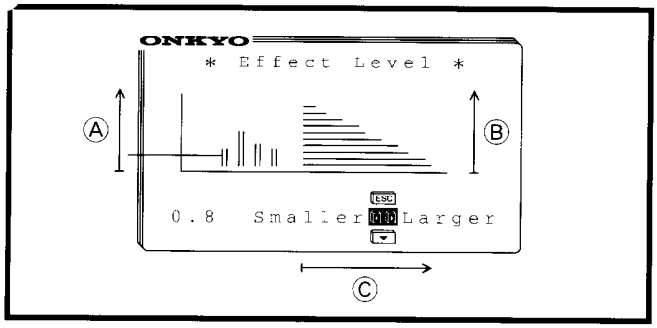


Hall Shape
You can select from seven hall shape settings between 0.4 and 1.6, indicating the ratio of hall breadth to length. 0.4 to 0.8 simulate rectangular shapes, 1.0 simulates a square shape and 1.2 to 1.6 simulate oblong shapes.



Dialog Fade (STADIUM Surround mode only)
When you wish to remove the announcer's voice while watching a sports broadcast, set this parameter to "ON". It may be difficult or not possible to remove the announcer's voice from some sources.

Effect Level, Reverb Level and Reverb Time
By adjusting the level of the initial reflections and reverberation in sound from a recording, it is possible to create the illusion of actually being in a stadium without leaving your living room. For each parameter, you can select from seven settings between 0.4 and 1.6.



Effect level (Ⓐ)
Adjusts the initial reflection level. Increasing the setting increases the effect sound level.

Reverb level (Ⓑ)
Adjusts the level of only the reverb (not the initial reflections). Increasing the setting makes the "mountain" higher and increases the reverb sound level.

Reverb Time (Ⓒ)
Adjusts the time taken for the reverberation to decay completely. Increasing the setting widens the base of the "mountain" and lengthens the reverb time.

Midnight Theater
If you must play a movie at a low sound volume at night, set this parameter to "ON" to make the dynamic range of the reproduced sound narrower for easy-to-hear sound.
This parameter will have no effect on the sound if the Dolby AC-3 software are not installed with this function.

Default
Move the cursor to this parameter and press the ► cursor button on the remote control to display the YES and NO settings. Move the cursor to YES and press the ◄ cursor button to return all parameters in the displayed Surround Setup screen to their default settings. Move the cursor to NO and press the ► cursor button to leave the parameters unchanged.

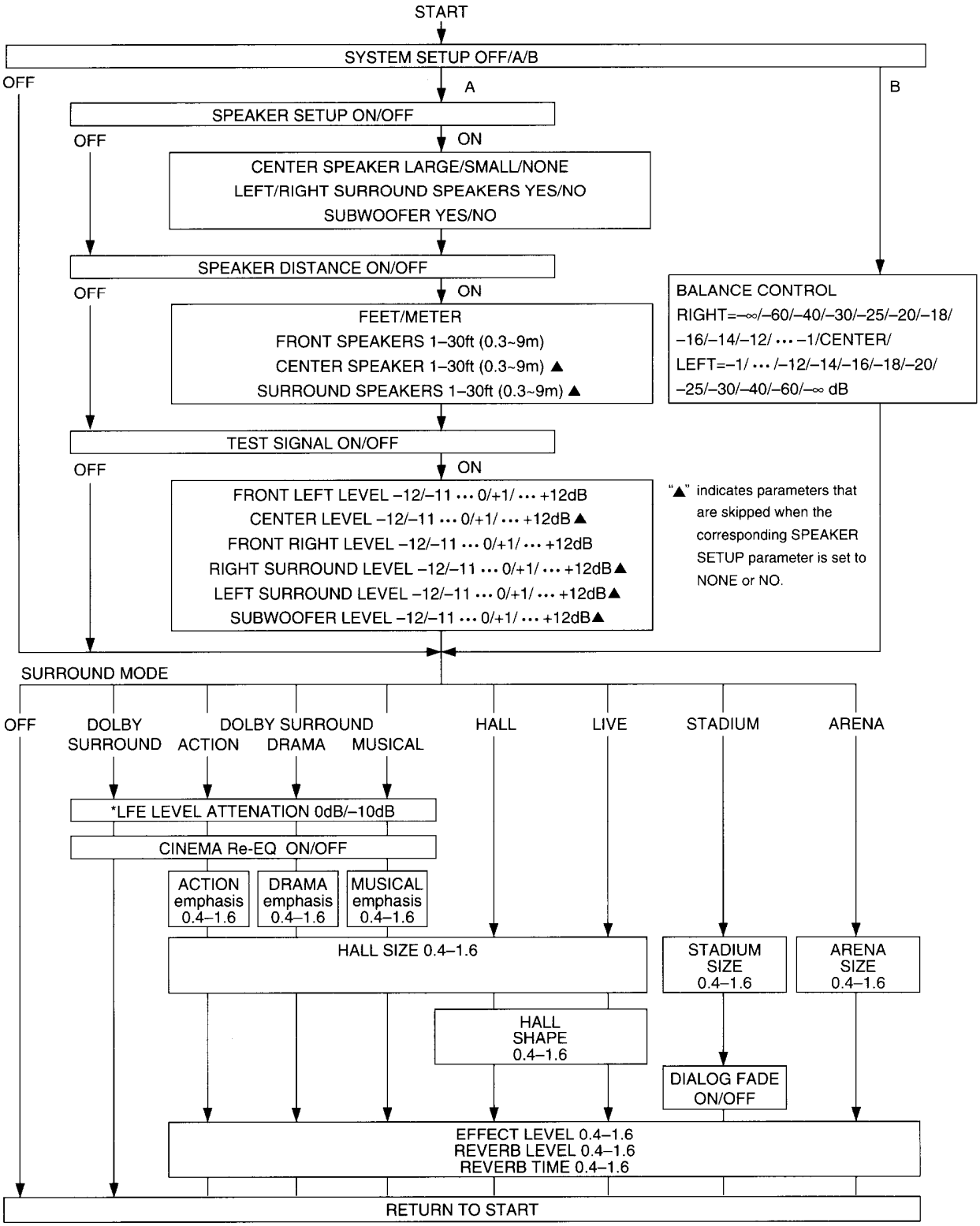
Default values

Parameter	Default values
LFE Level Attenuation	0 dB
Cinema Re-EQ	OFF
ACTION/DRAMA/MUSICAL Emphasis	1.0
Hall/Arena/Stadium Size	1.0
Hall Shape	1.0
Dialog Fade	OFF
Effect Level	1.0
Reverb Level	1.0
Reverb Time	1.0
Midnight Theater	OFF

TX-DS838 parameters

Refer to *Selecting a Surround mode* on page 42 for details on setting the Surround mode parameters.

(The following parameters appear in the multi-function display on the main unit when the main unit's PARAMETER buttons are used.)



"*" indicates the parameter that only appears with the AC-3 Surround mode. With the PRO LOGIC Surround mode, this parameter is skipped.

Troubleshooting guide

If a problem occurs, adjust the controls on the TX-DS838 front panel to confirm that the remote control is not malfunctioning or has worn out batteries.

Trouble	Cause	Remedy
Power, then immediately no power	• The amplifier protection circuitry has been activated.	• Contact your Onkyo service center.
No power	• The power cord is disconnected. • There is external noise in the computer circuits of the TX-DS838. • The AC fuse is blown.	• Connect the power cord. • Turn the power off and then on again, or remove the AC plug from the outlet. • Contact your Onkyo service center.
Power but no sound	• The T-2 MONITOR indicator is lit. • The AUDIO MUTING indicator is lit. • The connections are bad or incorrect.	• Press the TAPE-2 MONITOR button. • Press the MUTE button on the remote control. • Check the input leads, speaker leads, pin plugs, etc.
No sound or very minimal sound from the center speaker	• The speaker wires are disconnected. • Surround mode is set to HALL, LIVE, ARENA, STADIUM or OFF. • The Center Speaker Setup is set to NONE.	• Check the connection between the amplifier and the speaker. • When HALL, LIVE, ARENA or STADUIM is selected for the Surround mode, only the effect sound will be output from the center speaker. The sound level will be less compared to the sound level when the DOLBY DIGITAL (AC-3)/PRO LOGIC ACTION, DRAMA, MUSICAL is selected. • Set the Center Speaker Setup to SMALL or LARGE.
Hum or low-frequency noise	• Poor or no input ground • Poor or no phono motor ground • The input and output cables are incorrectly positioned.	• Check the outer conductor of input plugs. • Check for a proper ground connection. • Adjust the placement of the cables to reduce hum.
Howling when the volume is turned up	• The turntable and speakers are too close to each other.	• Move them farther away from each other.
Rough or scratchy sound; high range is not clear	• The pick-up stylus is worn. • The stylus tip is dirty. • The treble level is too high.	• Replace it. • Clean it. • Decrease the treble.
AM stations cannot be received	• The AM loop antenna is not attached.	• Connect the enclosed AM loop antenna to the AM antenna terminals.
Buzzing noise on AM (particularly at night or with weak stations)	• There is noise from other electrical equipment, such as fluorescent lamps.	• Move the AM loop antenna to a different position. • Connect an outdoor AM antenna.
High-pitched noise or buzzing noise on AM	• There is noise from the TV.	• Place the AM loop antenna as far as possible from the TV. • Move the unit away from the TV.
Crackling noise on AM or FM	• The noise is caused by turning a fluorescent lamp on and off. • The noise is caused by an automobile ignition.	• Move the antenna as far as possible from the fluorescent lamp. • Install an FM outdoor antenna as far as possible from the road. • Change the position or direction of the outdoor antenna.
FM TUNED and STEREO indicators light but sound is distorted and stereo separation is bad.	• The station signal is too strong. • There are multiple reflections of the radio waves due to tall buildings or mountains.	• Use a T-shaped antenna. • Use an antenna which has better directivity and select a frequency with less distortion.
FM TUNED and STEREO indicators flicker and a hiss is heard on FM.	• The station signal is too weak. • The stereo FM broadcasts cover only about half the distance of an ordinary broadcast.	• Install an outdoor FM antenna. • Adjust the position or direction of the outdoor antenna.
No station is recalled when a preset button is pressed.	• The power cord has been unplugged for an extended period of time.	• The memory contents are lost. Store all stations again.
Multi-Room Remote System does not operate.	• The connections are incorrect. • The MR OFF indicator on the TX-DS838 is lit. • The remote control is not aimed at the sensor. • The path between the remote control and the sensor is blocked.	• Check the connections. • Press the MR OFF button. (The MR OFF indicator should go off.) • Aim the remote control at the TX-DS838 remote control sensor. • Remove the object blocking the path to the sensor
Front panel controls function but remote control does not.	• There are no batteries in the remote control. • The batteries are worn out.	• Insert batteries. • Replace batteries.
Also refer to the respective instruction manuals of the other components, e.g. video disc player, video cassette recorder or TV/monitor.		

Troubleshooting guide

NOTE:

- The tuning steps by which the tuned frequency changes on each band have been set at the factory to the proper value for the country where the unit is to be sold. If you use the unit in a country where a different tuning step is required or if the broadcast frequencies in your country change so that you cannot tune in radio stations accurately, contact your authorized Onkyo service center.

This device employs a microcomputer to perform various functions and operations. If interference generated by an external power supply, radio waves, or other electrical source results in an accident which causes the specified operations and functions to operate abnormally, follow the procedure below to reset the unit.

1. While holding down the VIDEO-1 button, press the SPEAKER A button.
2. After "Clear" is displayed, the preset memory and parameters stored in the memory, such as those for the Surround mode, are initialized and will return to the factory default settings.

Problem with the RC-P101S, RC-P201S remote control

The remote control does not operate.	• First, try adjusting the controls on the main unit's front panel. If the unit cannot be operated, the problem is in the main unit and not the remote control. • If the batteries are weak, replace them. • Press the appropriate INPUT SELECTOR button on the remote control to select your desired source and start operating it.
Some or all buttons on the video component don't function.	• Depending on the video component's manufacturer, some buttons on the remote controller may not work. In this case, use the remote controller that came with the video component.

Questions	Answers
Q : Why can't I get On-screen displays on my TV/monitor?	A : Make sure you have a single RCA video cable running from the monitor output connector on the back of the TX-DS838 to the EXT. 1 or video-1 input of your TV/monitor. You must make the input selection on the TV/monitor. (Many customers assume that the TX-DS838 will switch the TV/monitor mode automatically).
Q : How do I get just my TV sound through my stereo?	A : On the back of your TV/monitor you should see AUDIO OUT LEFT and RIGHT RCA jacks. Run a standard RCA cable from those outputs to the VIDEO-3 IN on the TX-DS838. Do not use the PHONO input.
Q : Why is there no sound coming from my unit? It worked fine yesterday and there is some music faintly in the background.	A : Check to see that the T-2 MONITOR indicator is not lit.

Specifications

AMPLIFIER SECTION

Power output: Stereo mode (Surround mode: OFF)
L and R FRONT SPEAKERS
100 watts per channel min. RMS. at 8 ohms; both channels driven between 20 Hz and 20,000 Hz with no more than 0.08 % total harmonic distortion.
Continuous power 2 x 150 Watt at 6 ohms (DIN)
Surround mode
L and R FRONT and CENTER SPEAKERS
90 watts per channel min RMS. at 8 ohms three channels driven from 20 Hz to 20,000 Hz, with no more than 0.08% total harmonic distortion.
L and R SURROUND SPEAKERS
50 watts per channel min. RMS. at 8 ohms; both channels driven from 20 Hz to 20,000 Hz with no more than 0.08% total harmonic distortion.

IM distortion: 0.08% at rated power (L and R)
Damping factor: 60 at 8 ohms (L and R)
Input sensitivity/impedance: Phono: 2.5 mV/50 kohms
Line (CD, TAPE-1 and - 2,VIDEO-1 ~ 4): 150 mV/50 kohms
Output level/impedance:
OUTPUT (REC) (TAPE-1 and -2): 150 mV/2.2 kohms
OUT (VIDEO 1, 2): 150 mV/2.2 kohms
PRE OUT (LEFT, RIGHT, LEFT SURROUND, RIGHT SURROUND, SUBWOOFER, CENTER): 1V/470 ohms
Phono overload: 120 mV RMS. at 1,000 Hz, 0.5 % THD.
Frequency response: 20 to 30,000 Hz, +/–0.5 dB
RIAA deviation: 20 to 20,000 Hz, +/–0.8 dB
Tone control: BASS: +/–10 dB at 50 Hz
MIDBASS: +/–10 dB at 300 Hz
TREBLE: +/–10 dB at 10,000 Hz
Signal-to-noise ratio: PHONO: 80 dB (IHF A, 5mV input) (Surround mode: OFF)
CD/TAPE: 100 dB (IHF A)
Muting: –∞dB

VIDEO SECTION

Television format: NTSC (U.S. and Canadian models)
NTSC/PAL (Other models)
Input sensitivity/impedance
IN (VIDEO-1 ~ 4) VIDEO (Composite): 1 Vp-p/75 ohms
IN (VIDEO-1 ~ 4) S-VIDEO (Y signal): 1 Vp-p/75 ohms
IN (VIDEO-1 ~ 4) S-VIDEO (C signal): 0.28 Vp-p/75 ohms
Output level/impedance
OUT (VIDEO-1 ~ 2, MONITOR OUT) VIDEO (Composite): 1 Vp-p/75 ohms
OUT (VIDEO-1 ~ 2, MONITOR OUT) S-VIDEO (Y signal): 1 Vp-p/75 ohms
OUT (VIDEO-1 ~ 2, MONITOR OUT) S-VIDEO (C signal): 0.28 Vp-p/75 ohms

DIGITAL SECTION

Digital input sampling frequency: 32, 44.1, 48 kHz
Input sensitivity/impedance:
Coaxial: 0.5 Vpp/75 ohms
AC-3RF: 0.4 Vpp/75 ohms

TUNER SECTION

FM:

Tuning range: 87.50 – 108.00 MHz (50 kHz steps)
Usable sensitivity: Mono: 11.2 dBf, 1.0 µV (75 ohms)
Stereo: 17.2 dBf, 2.0 µV (75 ohms)
50-dB Quieting sensitivity: Mono: 17.2 dBf, 2.0 µV (75 ohms)
Stereo: 37.2 dBf, 20 µV (75 ohms)
Capture ratio: 1.5 dB
Image rejection ratio: 40 dB (U.S. and Canadian models)
85 dB (European models)
85 dB (Woldwide model)
IF rejection ratio: 90 dB
Signal-to-noise ratio: Mono: 76 dB
Stereo: 70 dB
Alternate channel Attenuation: 55 dB
AM suppression ratio: 50 dB
Harmonic distortion: Mono: 0.1%
Stereo: 0.2%
Frequency response: 30 – 15,000 Hz ± 1.0 dB
Stereo separation: 45 dB at 1kHz
30 dB between 100 and 10,000 Hz
Muting level: 17.2 dBf

AM:

Tuning: U.S. and Canadian models: 530 to 1710 kHz (10 kHz steps)
European models: 522 to 1611 kHz (9 kHz steps)
Worldwide model: 530 to 1710 kHz (10 kHz steps) or 531 to 1602 kHz (9 kHz steps)
Usable sensitivity: 30 µV
Image rejection ratio: 40 dB
IF rejection ratio: 40 dB
Signal-to-noise ratio: 40 dB
Harmonic distortion: 0.7%

GENERAL

Power supply: U.S. and Canadian models: AC120V, 60 Hz
European models: AC 230V, 50 Hz
Worldwide model: 120/220 – 230 V switchable, 50/60 Hz
Dimensions (W x H x D): 435 x 175 x 428 mm (17-1/8˝ x 6-7/8˝ x 16-7/8˝)
Weight: 16.5 kg (36.4 lbs.)

REMOTE CONTROL RC-P101S, RC-P201S

Transmitter: Infrared
Signal range: Approx. 5 meters (16 ft.)
Power supply: Two AA batteries (1.5 V x 2)

Specifications and features are subject to change without notice.

ONKYO CORPORATION

Sales & Product Planning Div. : 2-1, Nisshin-cho, Neyagawa-shi, OSAKA 572, JAPAN
Tel: 0720-31-8111 Fax: 0720-33-5222

ONKYO U.S.A. CORPORATION
200 Williams Drive, Ramsey, N.J. 07446, U.S.A.
Tel: 201-825-7950 Fax: 201-825-8150 E-mail: onkyo@onkyousa.com

ONKYO EUROPE ELECTRONICS GmbH
Industriestrasse 18-20, 82110 Germering, GERMANY
Tel: 089 84 93 20 Fax: 089 84 93 226

ONKYO FRANCE
Immeuble Le Diamant, Domaine Technologique de Saclay, 4 Rue René Razel,
91892 SACLAY, FRANCE Tel: (1) 69 33 14 00 Fax: (1) 69 41 35 84

ONKYO HOMEPAGE
http://www.onkyo.co.jp/

SN 29342335

01-6Z-6K-TMN

Printed in Japan